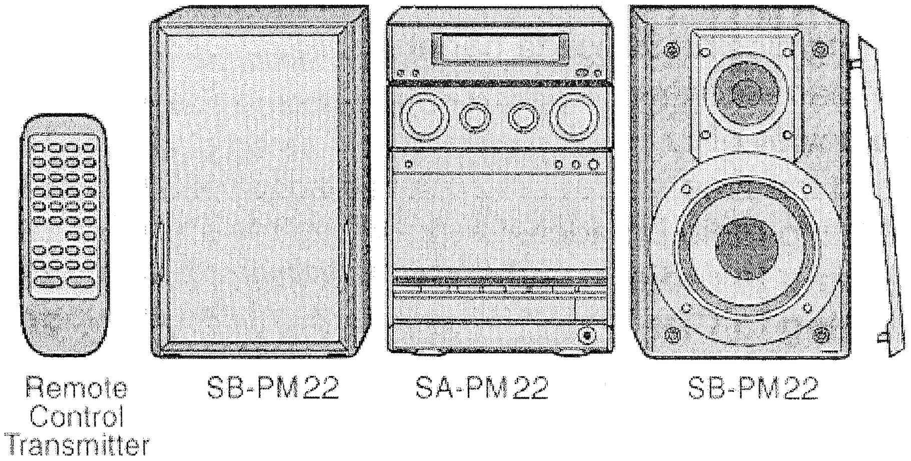
ORDER NO. MD0005080C3

Service Manual

CD Stereo System

COMPACT
disc
DIGITAL AUDIO

SA-PM22
Colour
(S)...Silver Type
(GN)...Oceania
(GT)...Taiwan
TAPE SECTION
AR2 MECHANISM SERIES
CD SECTION
RAE0152Z-3 TRAVERSE DECK SERIES


Remote Control Transmitter
SB-PM22
SA-PM22
SB-PM22

SPECIFICATIONS

▮ AMPLIFIER SECTION

RMS power output	
THD 10% both channels driven	
LOW	14 W per channel (6 Ω)
HIGH	6 W per channel (6 Ω)
Total BI-AMP power	20 W per channel
PMPO power output (GT)	
Total BI-AMP power	160 W
Input sensitivity	
AUX	250 mV
Input impedance	
AUX	47 kΩ
Output impedance	
Headphone	16-32 Ω

▮ FM TUNER SECTION

Frequency range	87.50-108.00 MHz (0.05 MHz step)
Sensitivity	1.8 μV(IHF)
S/N 26 dB	1.5 μV
Antenna terminal(s)	75 Ω (unbalanced)

▮ AM TUNER SECTION

Frequency range	522-1629 kHz (9 kHz steps)
Sensitivity	
S/N 20 dB	500 μV/m

▮ CASSETTE DECK SECTION

Track system	4 track, 2 channel
Heads	
Record/playback	Solid permalloy head
Erasure	Double gap ferrite head
Motor	DC servo motor
Recording system	AC bias 100 kHz
Erasing system	AC erase 100 kHz
Tape speed	4.8 cm/s
Overall frequency response (± 3 dB at DECK OUT)	
NORMAL (TYPE I)	50 Hz-13 kHz
HIGH (TYPE II)	50 Hz-13 kHz
S/N	52 dB (A weighted)
Wow and flutter	0.18 % (WRMS)

Fast forward and rewind times	Approx. 120 seconds with C-60 cassette tape
■ CD SECTION	
Sampling frequency	44.1 kHz
Decoding	16 bit linear
Beam source	Semiconductor laser
Wave length	780 nm
Number of channels	2 channels, stereo
S/N	
SP OUT	82 dB (JIS.A)
Wow and flutter	Below measurable limit
Digital filter	8 fs
D/A converter	MASH (1 bit DAC)
■ GENERAL	
Power supply	
For GN	AC 230-240 V, 50 Hz
For GT	AC 110 V, 60 Hz
Power consumption	
For GN	62 W
For GT	104 W
Dimension (W x H x D)	195 x 286 x 292 mm
Weight	5.0 kg

Notes:

1. Specifications are subject to change without notice.
Weight and dimension are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

■ SYSTEM : SC-PM22(GN)	Music Center: SA-PM22 (GN) Speaker: SB-PM22 (E)
■ SYSTEM : SC-PM22 (GT)	Music Center: SA-PM22 (GT) Speaker: SB-PM22 (E)

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic®

1. Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C628 through a 10Ω, 10W resistor to ground. DO NOT SHORT-CIRCUIT DIRECTLY (with a screw driver blade, for instance), as this may destroy solid state devices.
After repairs are completed, restore power gradually using a variac, to avoid overcurrent.
[For GN area]
Current consumption at AC 240V, 50 Hz in NO SIGNAL mode should be ~200 mA.
[For GT area]
Current consumption at AC 110V, 60 Hz in NO SIGNAL mode should be ~300 mA.

2. Protection Circuitry

The protection circuitry may have operated if either of the following conditions are noticed:

- **No sound is heard when the power is turned on.**
- **Stops during a performance.**

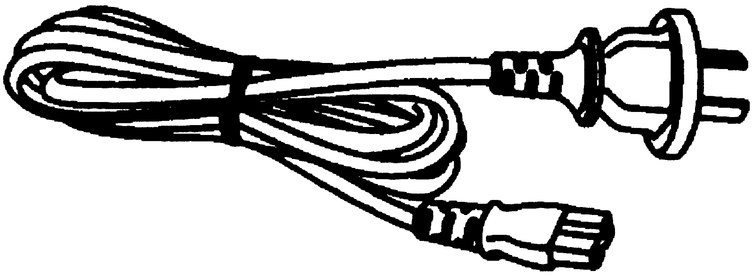
The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance ofthe amplifier are used.
If this occurs, follow the procedure outlines below:

1. **Turn off the power.**
2. **Determine the cause of the problem and correct it.**
3. **Turn on the power once again after one minute.**

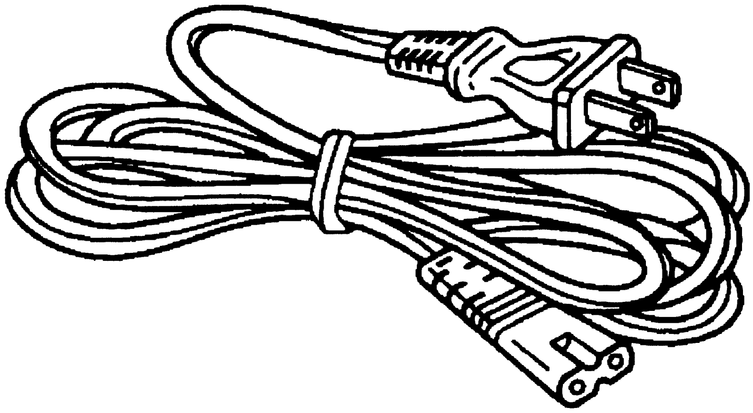
Note:
When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

3. Accessories

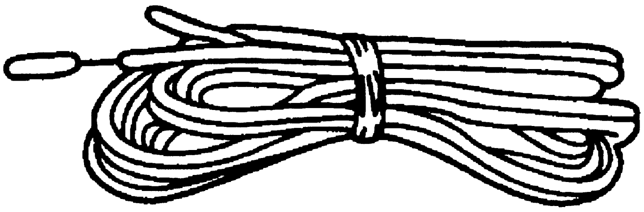
AC mains lead ... (GN)



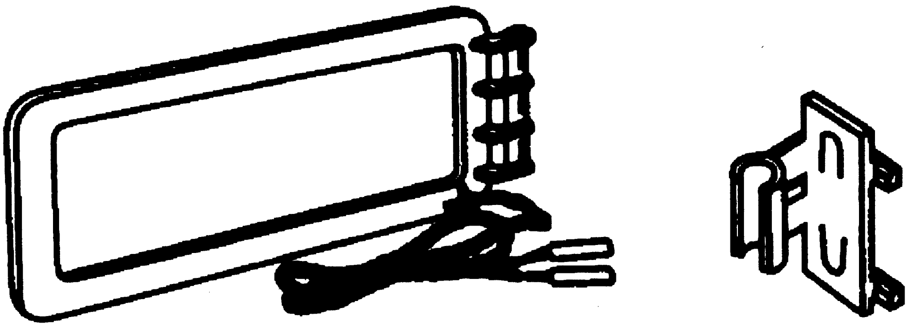
AC mains lead ... (GT)



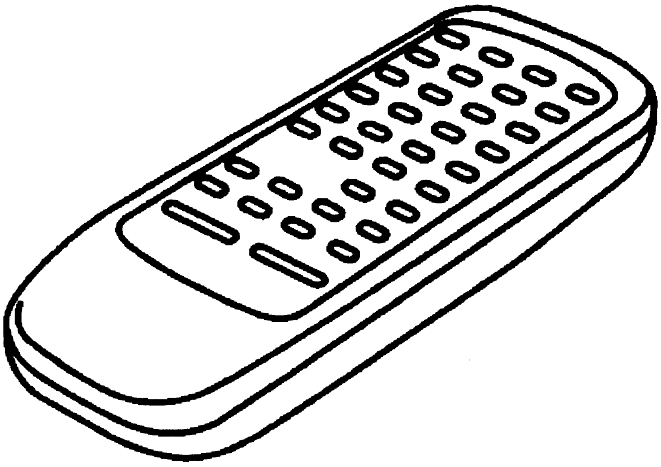
FM indoor antenna



AM loop antenna set



Remote control



4. Handling Precautions For Traverse Deck

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by static electricity of clothes or human body. So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).

- Handling of traverse deck (optical pickup)

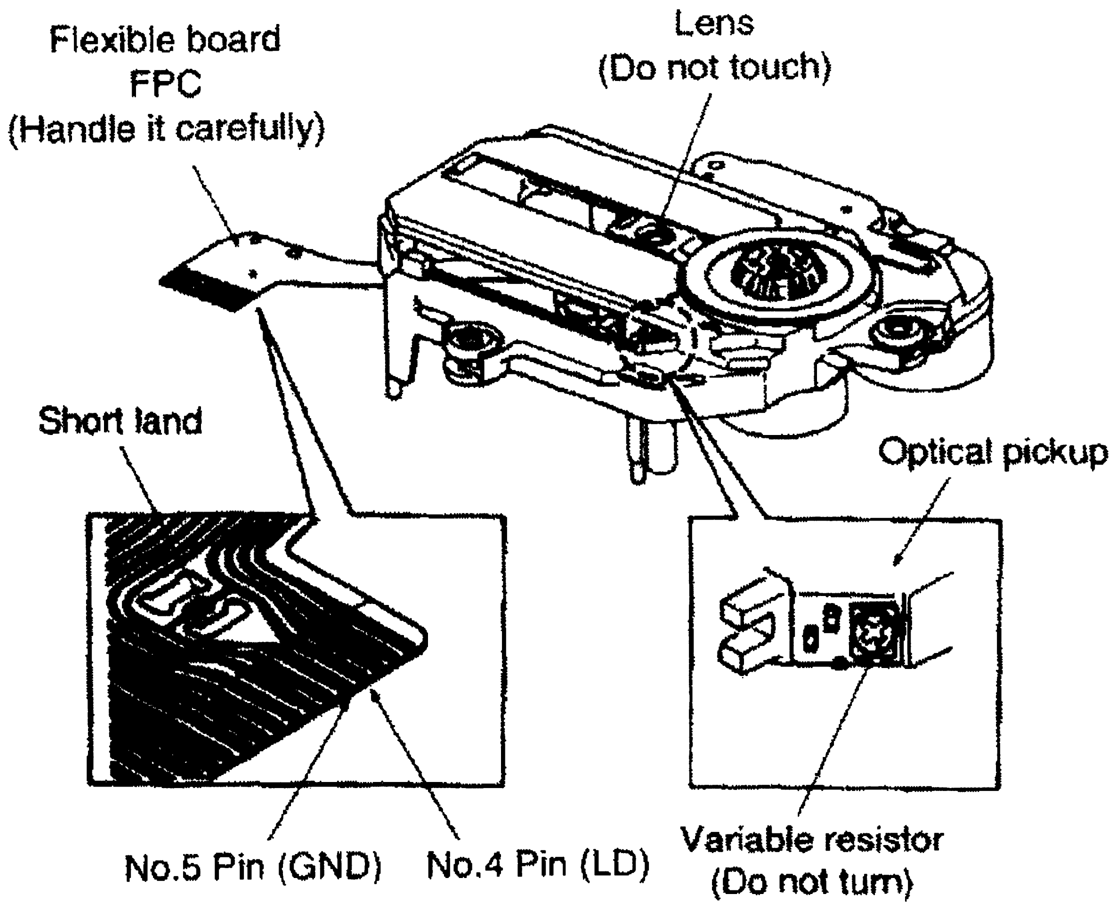
1. **Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.**
2. **To prevent the breakdown of the laser diode, an antistatic shorting pin is inserted into the flexible board (FFC board).**
3. **Take care not to apply excessive stress to the flexible board (FFC board). When removing or connecting the short pin, finish the job in as short time as possible.**
4. **Do not turn the variable resistor (laser power adjustment). It has already been adjusted.**

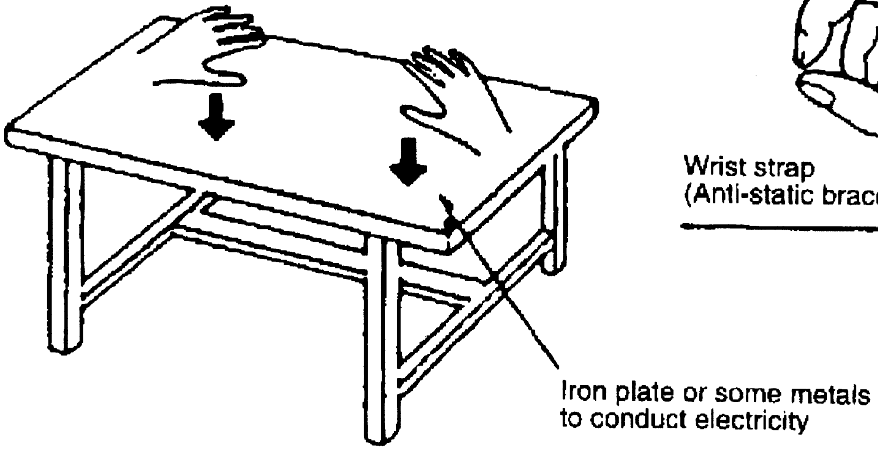
- Grounding for electrostatic breakdown prevention

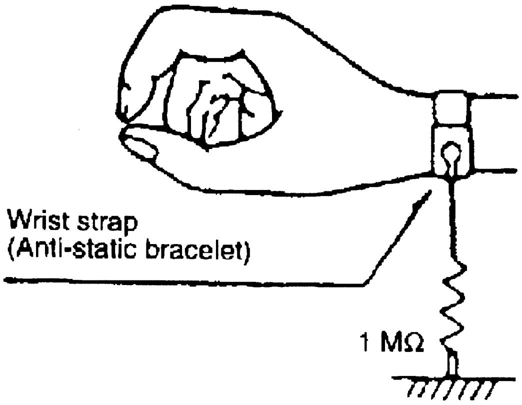
1. **Human body grounding**
   Use the anti-static wrist strap to discharge the static electricity from your body.
2. **Work table grounding.**
   Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is place, and ground the sheet.

Caution:

The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).


Flexible board
FPC
(Handle it carefully)
Lens
(Do not touch)
Short land
Optical pickup
No.5 Pin (GND)
No.4 Pin (LD)
Variable resistor
(Do not turn)


Iron plate or some metals
to conduct electricity


Wrist strap
(Anti-static bracelet)
1 MΩ

5. Precaution of Laser Diode

CAUTION:

This product utilizes a laser diode with the unit turned “ON”, invisible laser radiation is emitted from the optical pick up lens.
Wavelength: 780 nm
Maximum output radiation power from pick up: 100 μW/VDE
Laser radiation from pick up unit is safety level, but be sure that followings:

1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pick up unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pick up lens for a long time.

ACHTUNG:

Dieses Produkt enthält eine Laserdiode. Im eingeschalteten Zustand wird unsichtbare Laserstrahlung von der Lasereinheit abgestrahlt.
Wellenlänge: 780 nm
Maximale Strahlungsleistung der Lasereinheit: 100 μW/VDE
Die Strahlung an der Lasereinheit ist ungefährlich, wenn folgende Punkte beachtet werden:

1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
2. Den werkseitig justierten Einstellregler der Lasereinhit nicht verstellen.
3. Nicht mit optischen Instrumenten in die Fokussierlinse blicken.
4. Nicht über längere Zeit in die Fokussierlinse blicken.

ADVARSEL:

I dette a apparat anvendes laser.

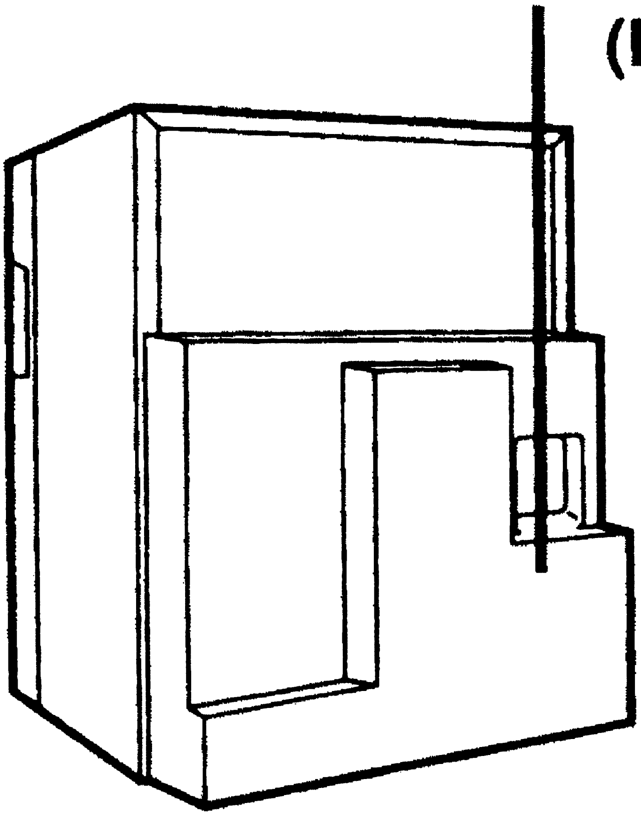
AUTION!

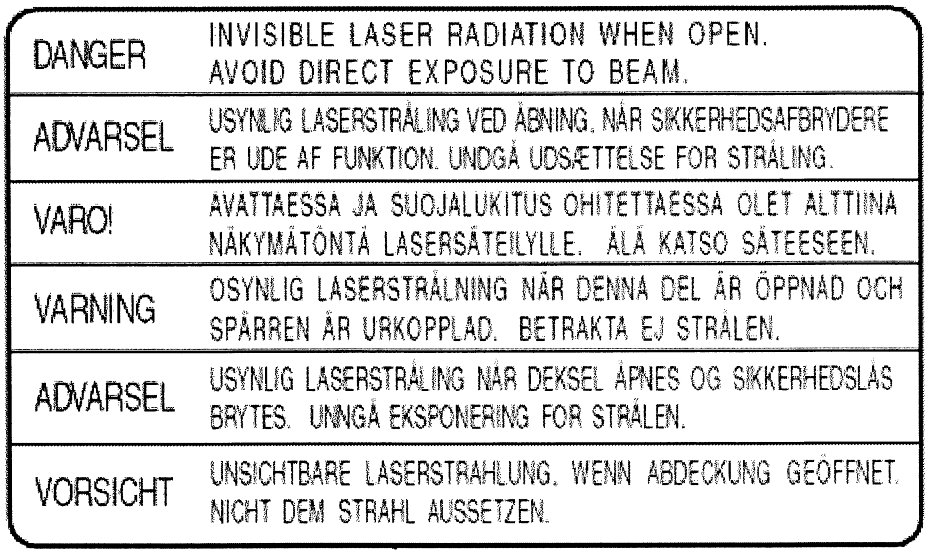
IS PRODUCT UTILIZES A LASER.
E OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE
ECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

Use of Caution Labels

CLASS 1
LASER PRODUCT

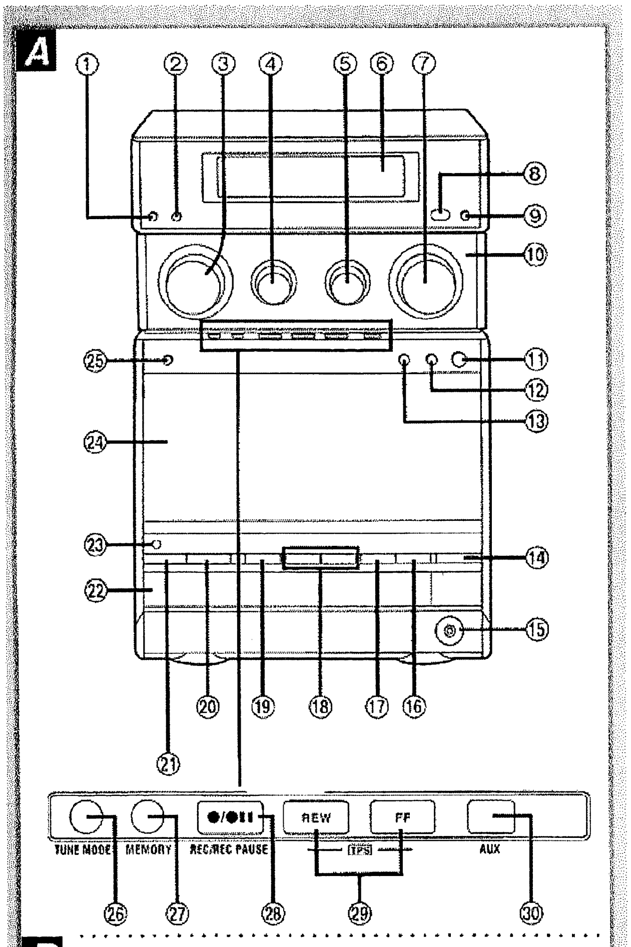
(Back of product)

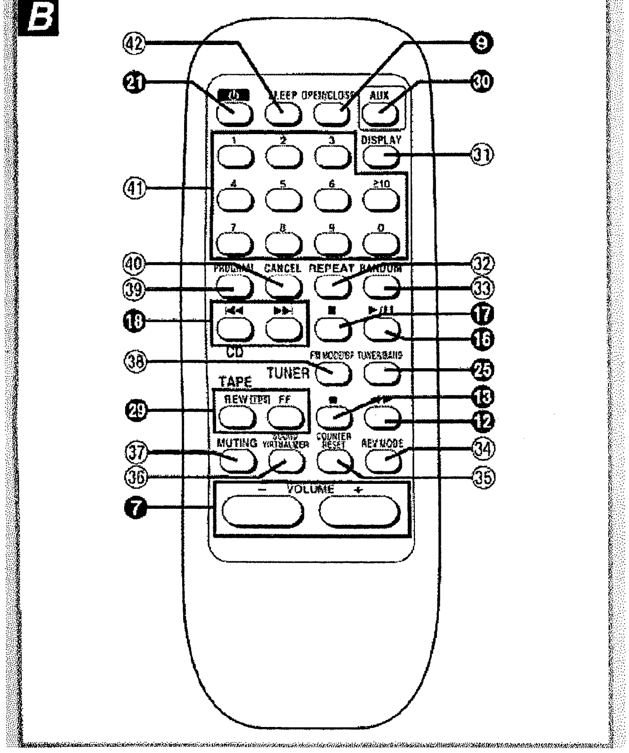




DANGER	INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.
ADVARSEL	USYNLIG LASERSTRÅLING VED ÅBNING. NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARO!	AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTÖNTÄ LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING	OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.
ADVARSEL	USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VORSICHT	UNSICHTBARE LASERSTRAHLUNG. WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.

6. Operation Procedures


A
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳
㉑
㉒
㉓
㉔
㉕
TUNE MODE
MEMORY
●/● ❚❚
REC/REC PAUSE
REW
FF
TPS
AUX
㉖
㉗
㉘
㉙
㉚


B
㊷
❷❶
❾
㉚
SLEEP
OPEN/CLOSE
AUX
DISPLAY
1
2
3
4
5
6
≥10
7
8
9
0
㉛
㊶
PROGRAM
CANCEL
REPEAT
RANDOM
㊵
㊴
㉜
㉝
⓲
⓱
⓰
CD
FM MODE/BP
TUNER/BAND
TUNER
TAPE
REW TPS FF
㊳
㉕
⓭
⓬
㉙
MUTING
SOUND VIRTUALIZER
COUNTER RESET
REV MODE
㊲
㊱
㉞
㉟
VOLUME
−
+
❼

Front panel controls

Main unit

A

Number	Name
①	Play timer/recording timer button (◷ PLAY/◷ REC)
②	Clock/timer button (CLOCK/TIMER)
③	Tune/time adjust control (TUNE/TIME ADJ)
④	Bass control (BASS)
⑤	Treble control (TREBLE)
⑥	Display
⑦	Volume control (VOLUME)
⑧	Remote control signal sensor
⑨	Glide panel open/close button (OPEN/CLOSE)
⑩	Glide panel
⑪	Cassette holder open button (▲ OPEN)
⑫	Cassette play/direction button (◀ ▶)
⑬	Cassette stop button (■)
⑭	CD tray open/close button (▲ OPEN/CLOSE)
⑮	Headphone jack (🎧)
⑯	CD play/pause button (▶/❚❚)
⑰	CD stop button (■)
⑱	Skip/search buttons (|◀◀ ▶▶|)
⑲	CD edit button (CD EDIT)
⑳	Auto power-off button (AUTO OFF)
㉑	Standby/on switch (POWER⏻/I)
㉒	CD tray
㉓	AC supply indicator (AC IN) This indicator lights when the unit is connected to the AC mains supply.
㉔	Cassette holder
㉕	Tuner/band select button (TUNER/BAND)
㉖	Tuning mode select button (TUNE MODE)
㉗	Memory button (MEMORY)
㉘	Record/record pause button (●/● ❚❚ REC/REC PAUSE)
㉙	Fast forward/rewind/tape program sensor buttons (TPS REW FF)
㉚	AUX button (AUX)

Remote control

B

Buttons such as ❼ function in exactly same way as the controls on the main unit.

Number	Name
㉛	Display select button (DISPLAY)
㉜	Repeat button (REPEAT)
㉝	Random play button (RANDOM)
㉞	Reverse mode select button (REV MODE)
㉟	Tape counter reset button (COUNTER RESET)
㊱	Sound virtualizer button (SOUND VIRTUALIZER)
㊲	Muting button (MUTING)
㊳	FM mode/BP button (FM MODE/BP)
㊴	Program button (PROGRAM)
㊵	Cancel button (CANCEL)
㊶	Numeric buttons
㊷	Sleep timer button (SLEEP)

7. Operation Checks and Main Component Replacement Procedures

"ATTENTION SERVICER"
Some chassis components maybe have sharp edges. Be careful when diassembling and servicing.

1. **This section describes the procedures for checking the operation of the major printed circuit boards and replacing the main components.**
2. **For assembly after operation checks or replacement, reverse trhe respective procedures.**
   Special reassembly procedures are described only when required.
3. **Select items from the following index when checks or replacement are requirement.**

Content

- **Checking Procedure for each major P.C.B.**
- **Main Component Replacement Procedures**

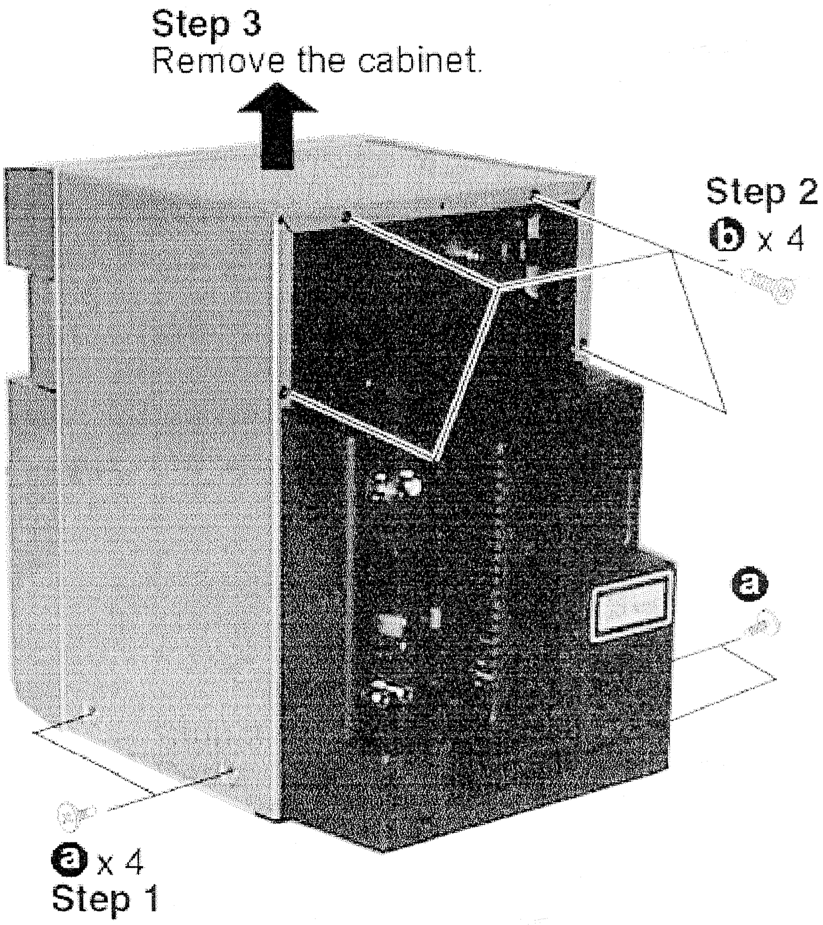
Warning:

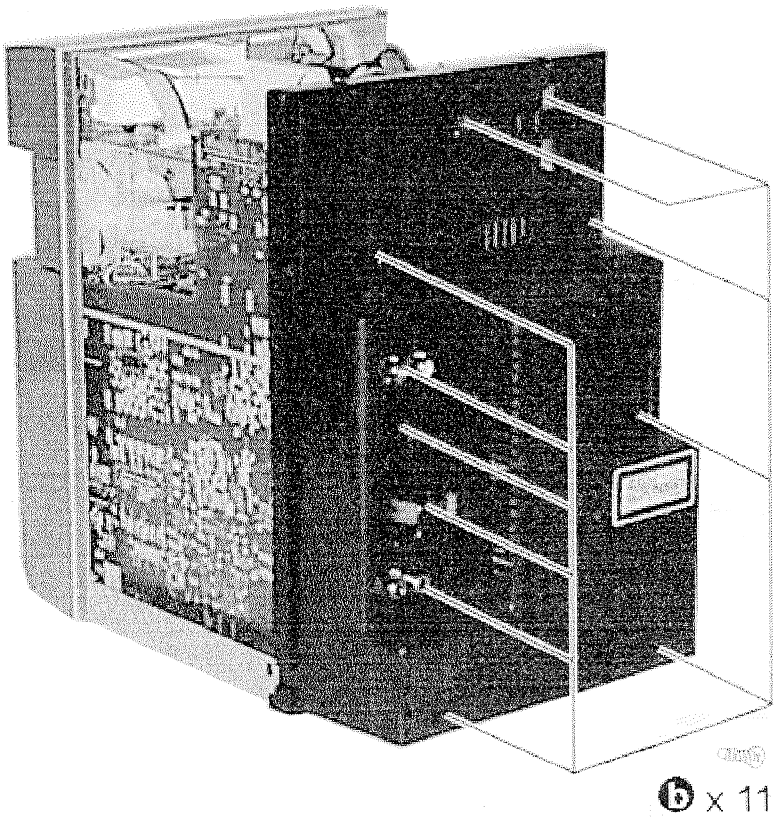
This product uses a laser diode. Refer to 5 Precaution of Diode.

ACHTUNG:

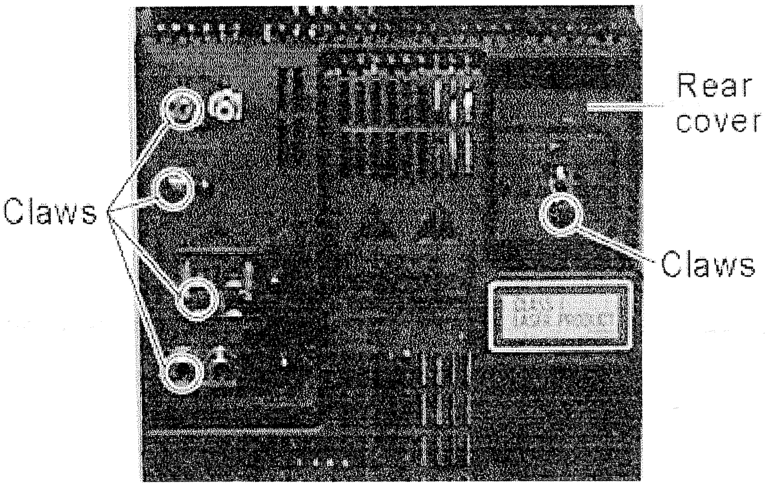
Die Lasereinheit nicht zerlegen.
Die Lasereinheit darf nur gegen eine vom Hertsteller spezifizierte Einheit ausgetauscht werden.

7.1. Checking Procedure for each major P.C.B.

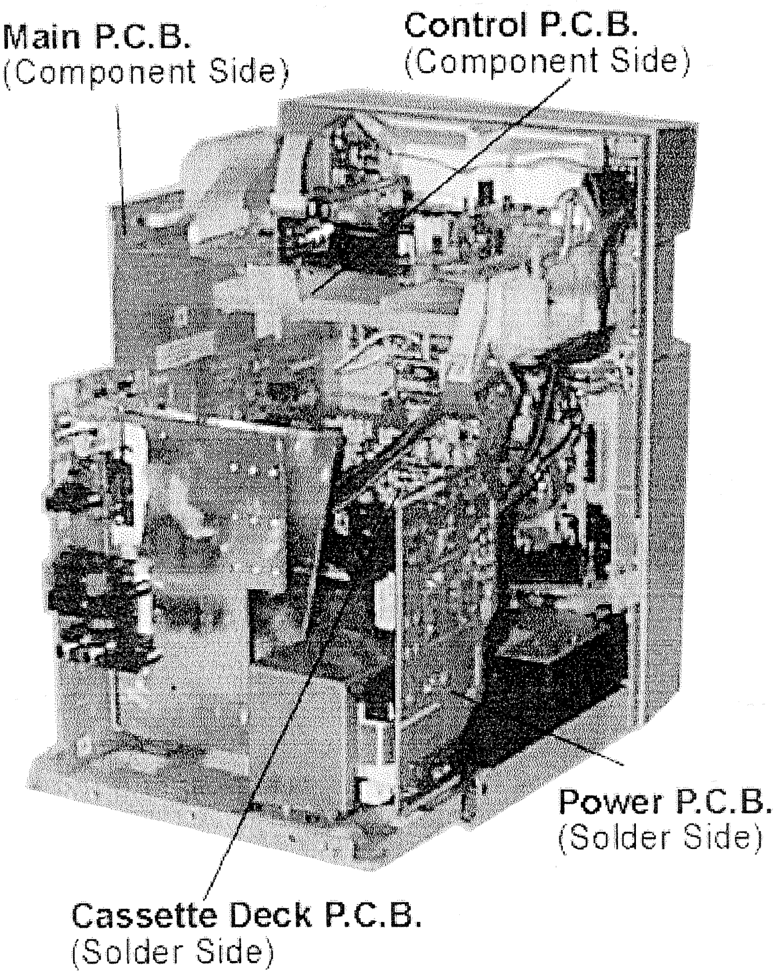

Step 3
Remove the cabinet.
Step 2
ⓑ x 4
ⓐ
ⓐ x 4
Step 1

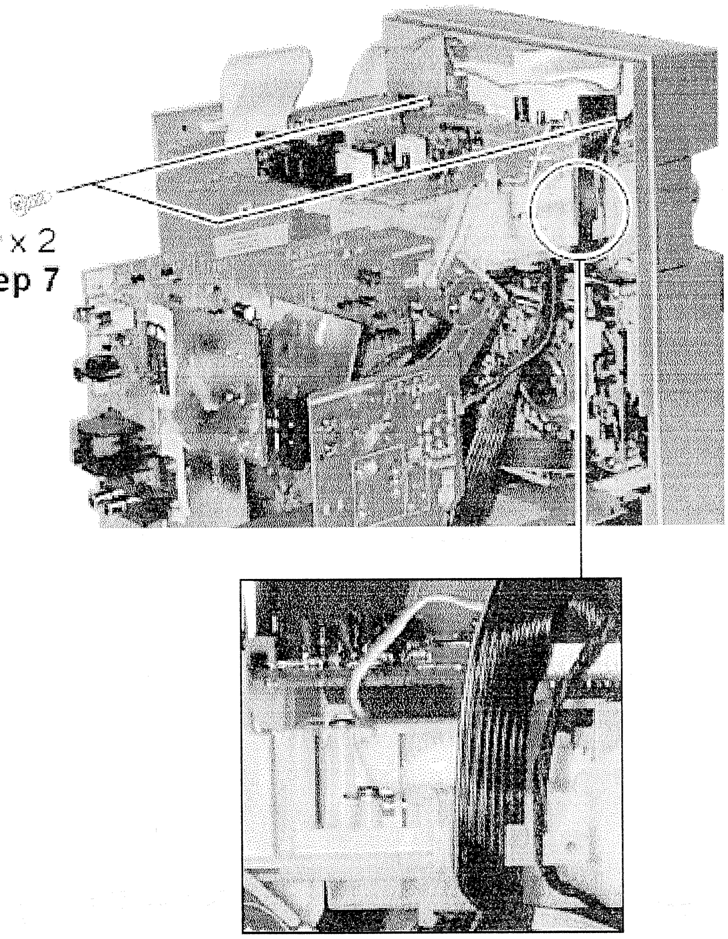


Step 4


Claws
Rear cover
Claws

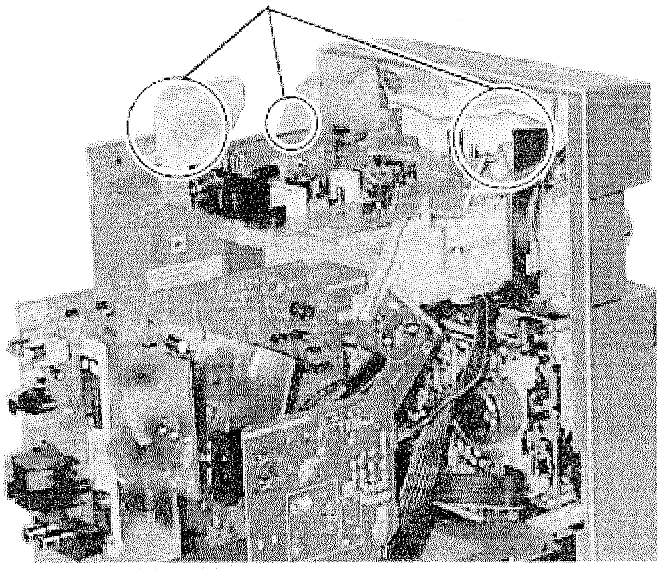
Step 5
Release the claws with thin tips of minus screwdriver, and then remove the rear cover.

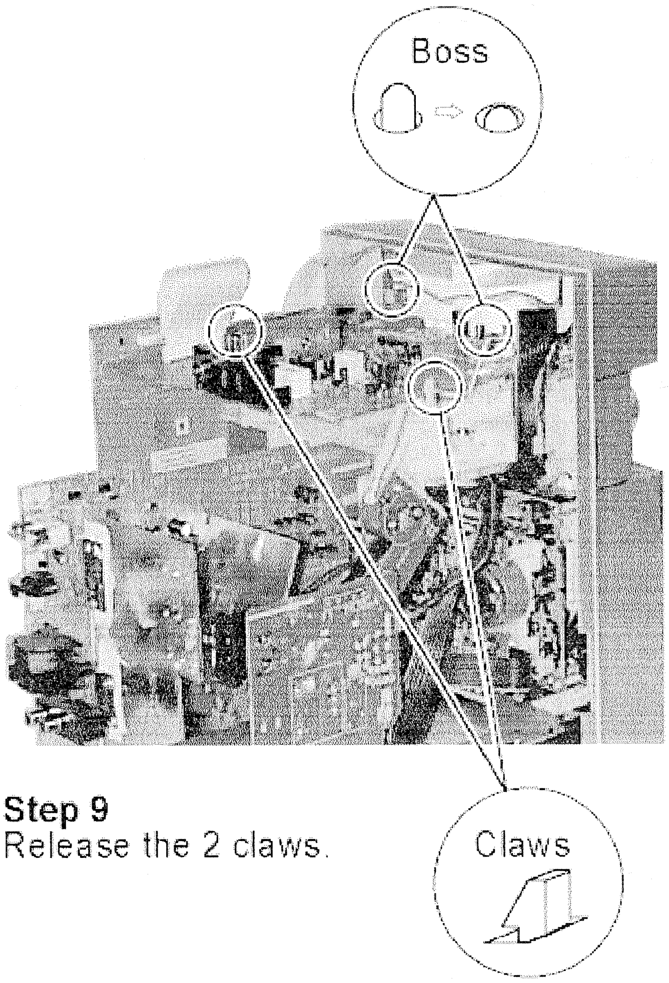

Main P.C.B.
(Component Side)
Control P.C.B.
(Component Side)
Power P.C.B.
(Solder Side)
Cassette Deck P.C.B.
(Solder Side)



Ⓒ x 2
Step 7

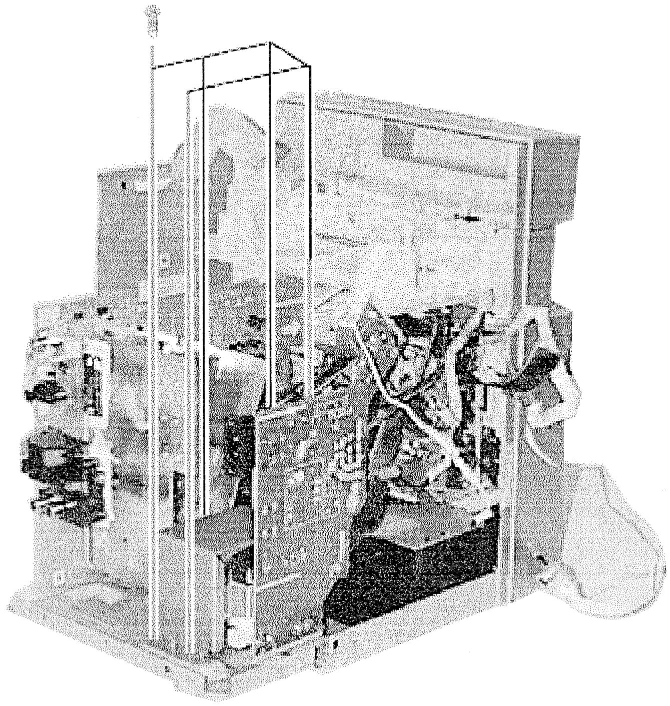
Step 8
Remove the connectors.





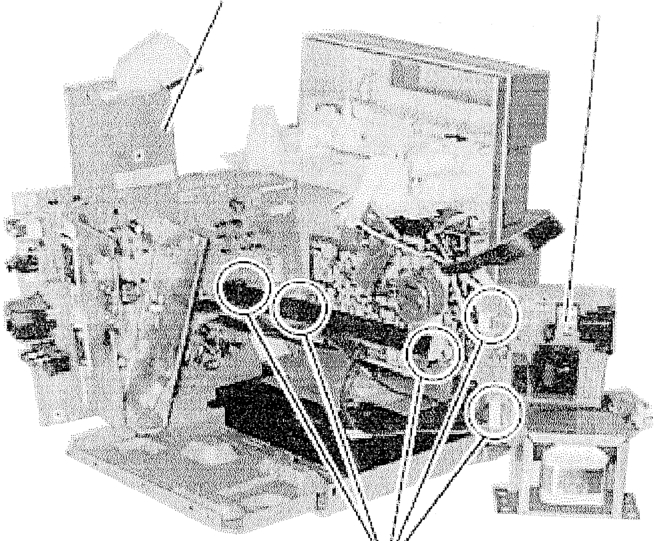
Step 9
Release the 2 claws.

Step 10
Release the bosses with lifting the Control PCB and then remove the Control PCB and Sensor PCB.



Step 11

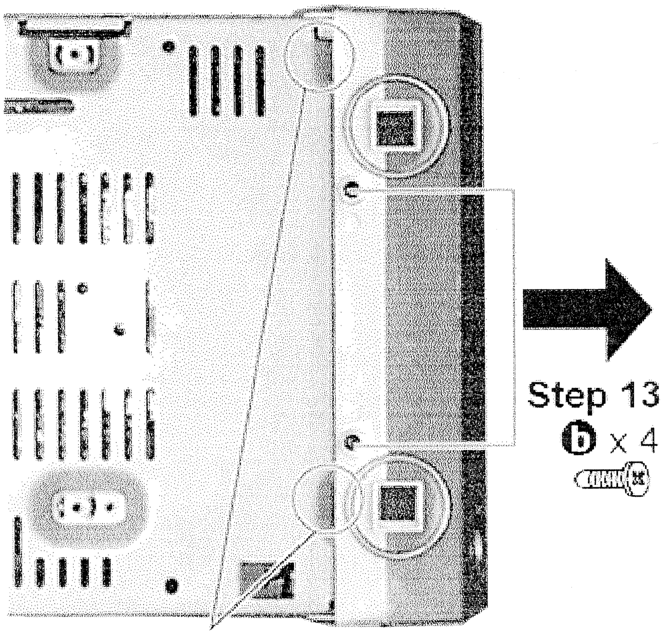
ⓑ x 5



Main P.C.B.
(Component Side)

Power P.C.B.
(Component Side)

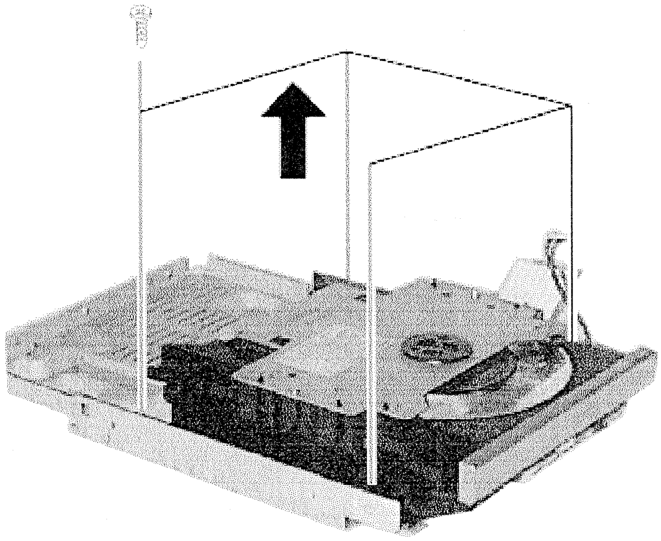
Step 12
Remove the connectors

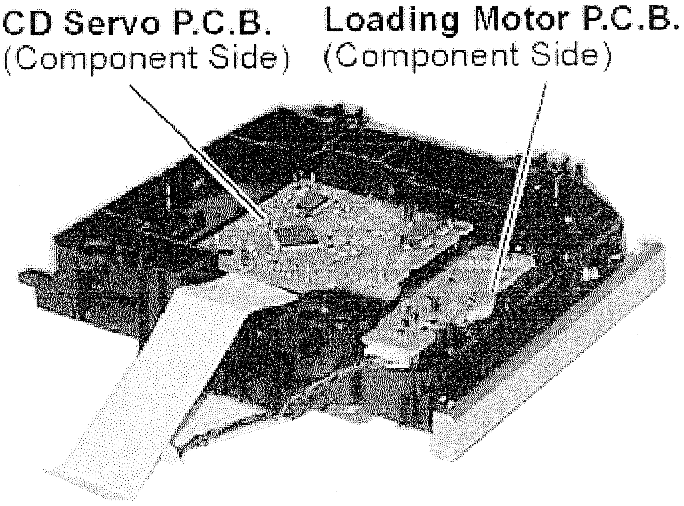


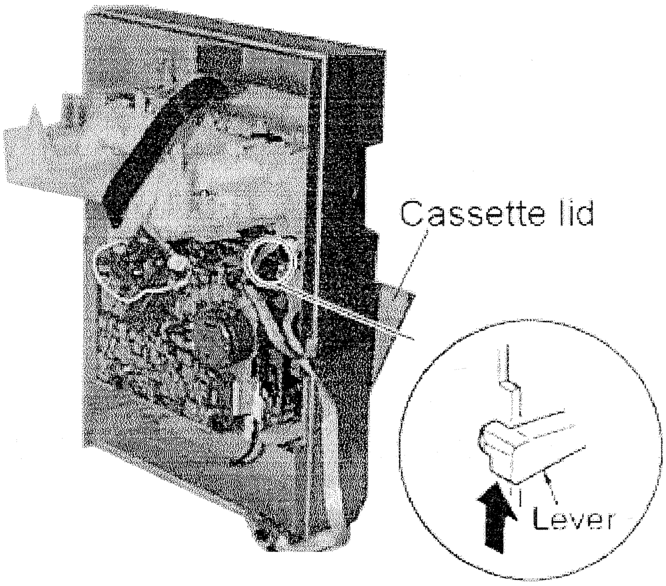
Step 13
ⓑ x 4

Step 14
Remove the rib with a minus screwdriver and pull out the front panel in the direction of arrow

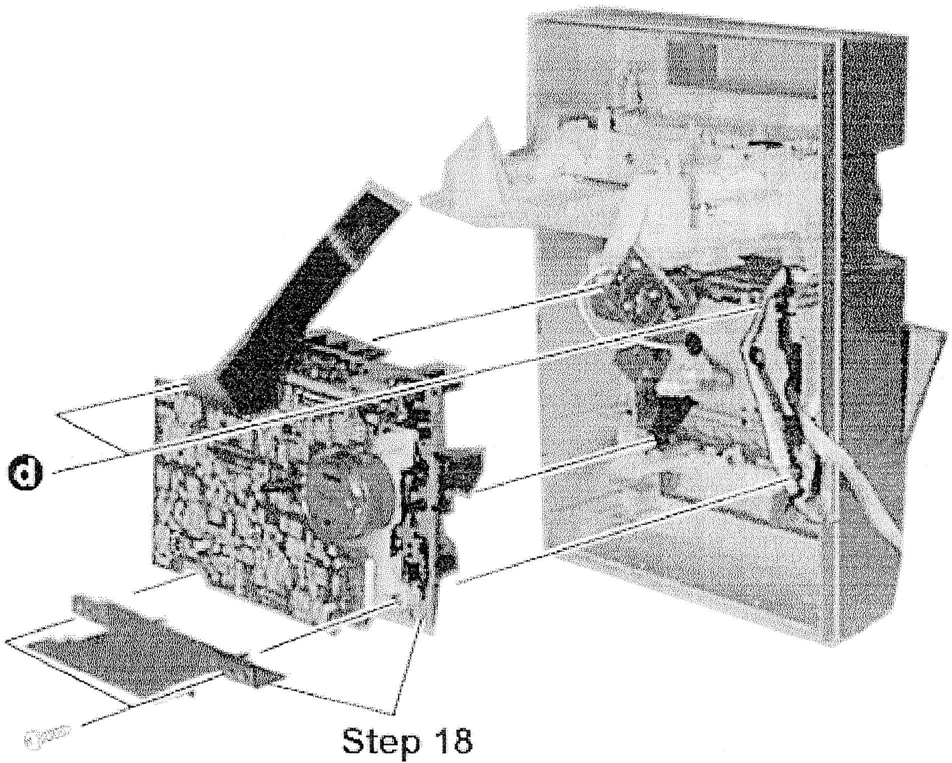
Step 15
ⓑ x 4




CD Servo P.C.B.
(Component Side)
Loading Motor P.C.B.
(Component Side)


Cassette lid
Lever

Step 16
Push the lever upward and open the cassette lid.

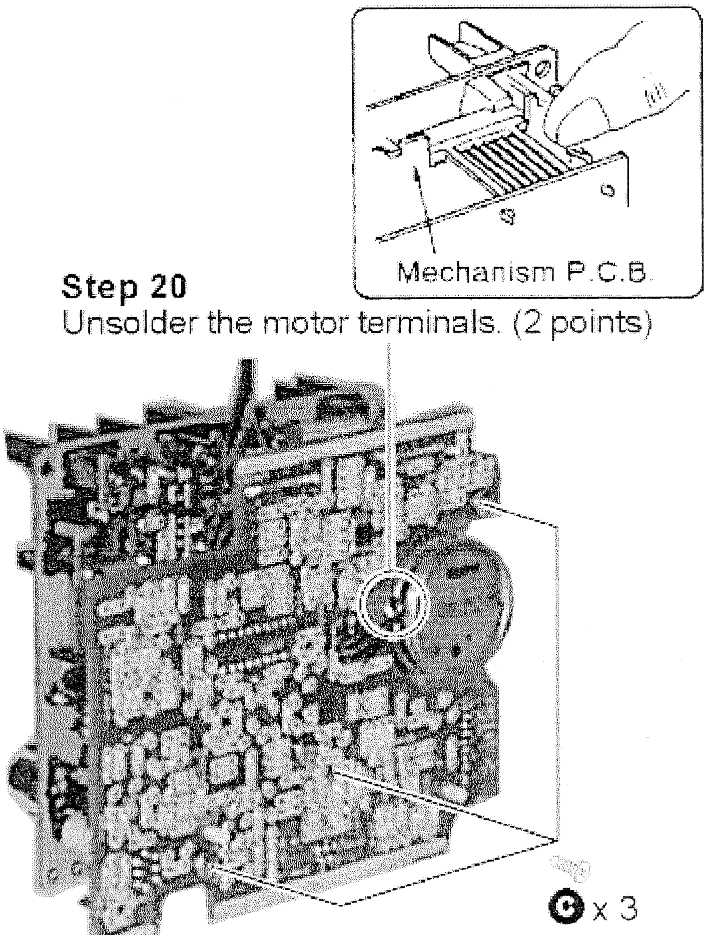


ⓓ x 4

Step 17

Step 18

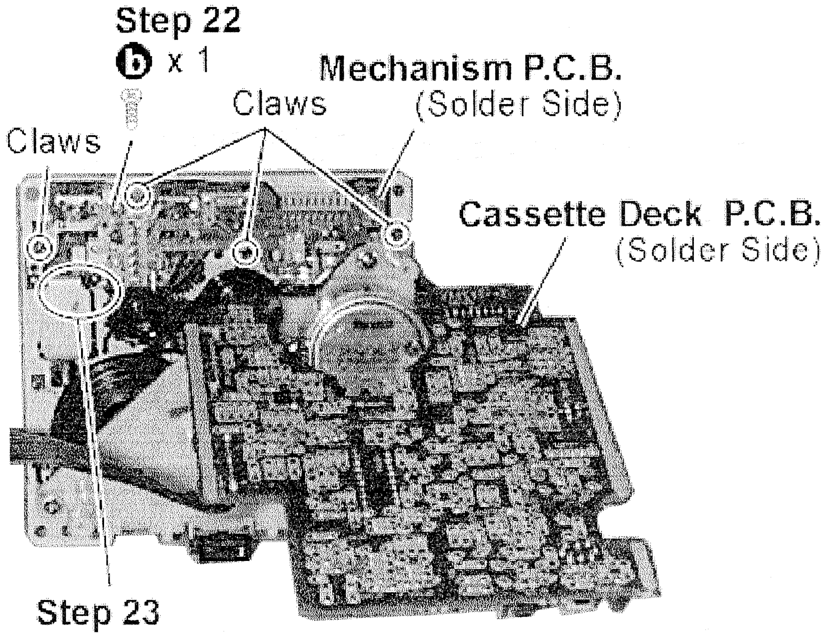
Remove the shield plate and cassette mechanism.



Step 20
Unsolder the motor terminals. (2 points)

Step 19

Step 21
When removing the Cassette Deck P.C.B., remove by holding the Mecanism P.C.B. and pull the P.C.B. in the direction of the arrow.


Claws
Claws
Mechanism P.C.B.
(Solder Side)
Cassette Deck P.C.B.
(Solder Side)

Step 22
ⓑ x 1

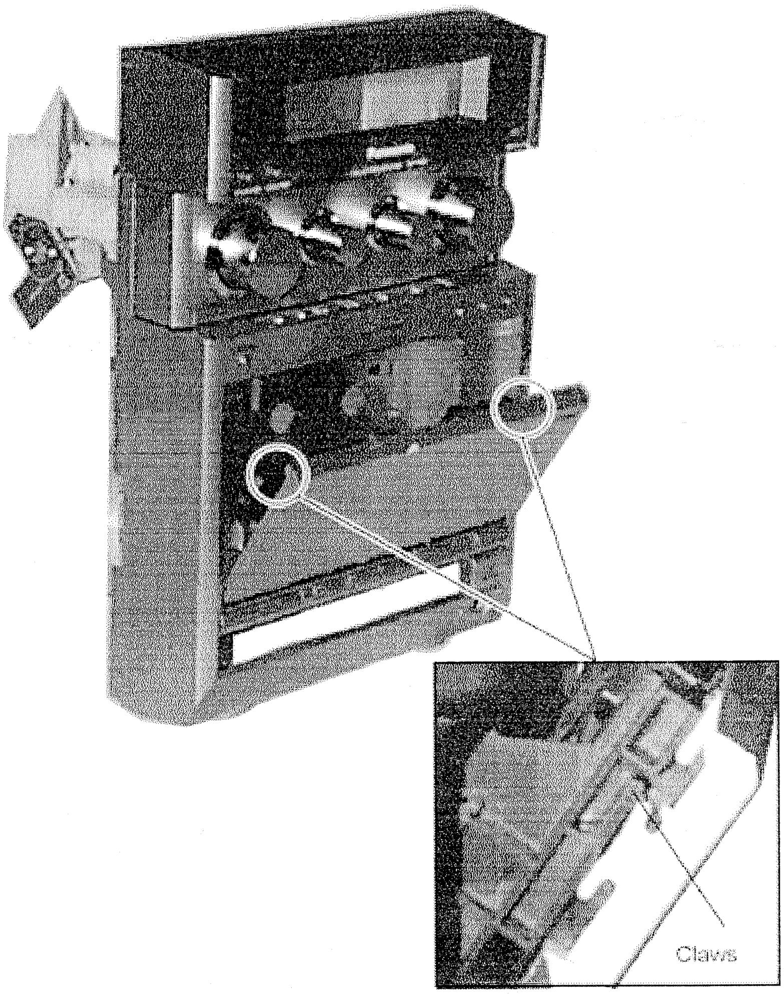
Step 23
Un solder the plunger terminals. (2 points)

Step 24
Release the 4 claws and then remove the mechanism P.C.B..

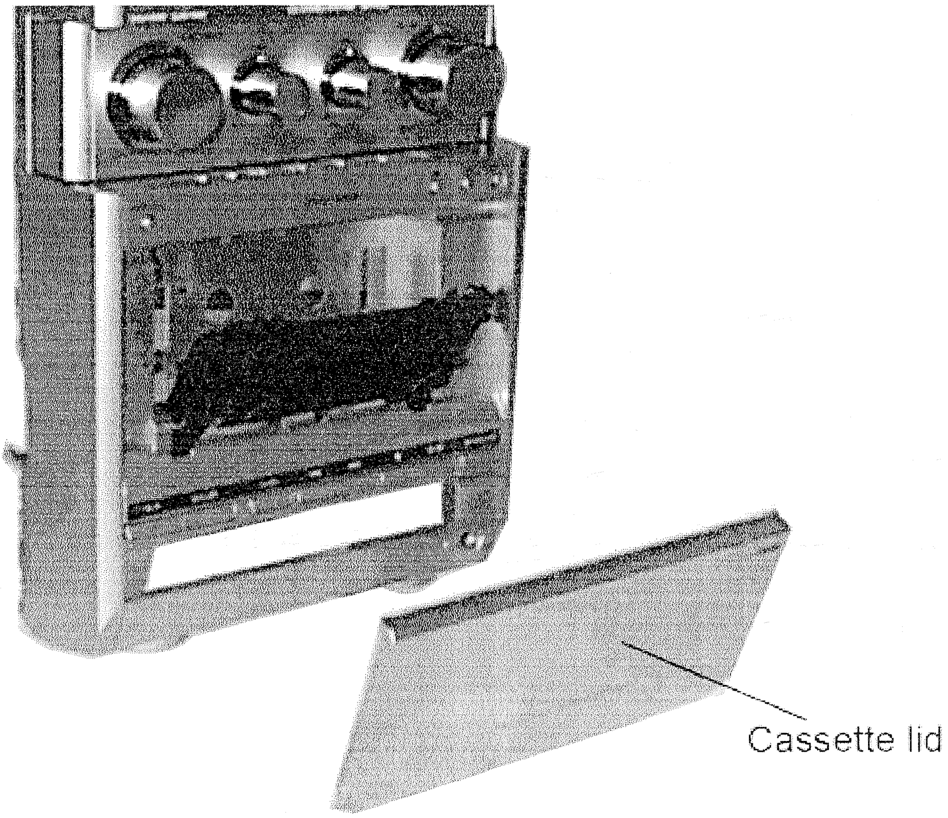
7.2. Main Component Replacement Procedures

7.2.1. Replacement for the cassette deck lid

- **Follow (Step 1 to step 14 and 16) in the checking procedure for each P.C.B..**



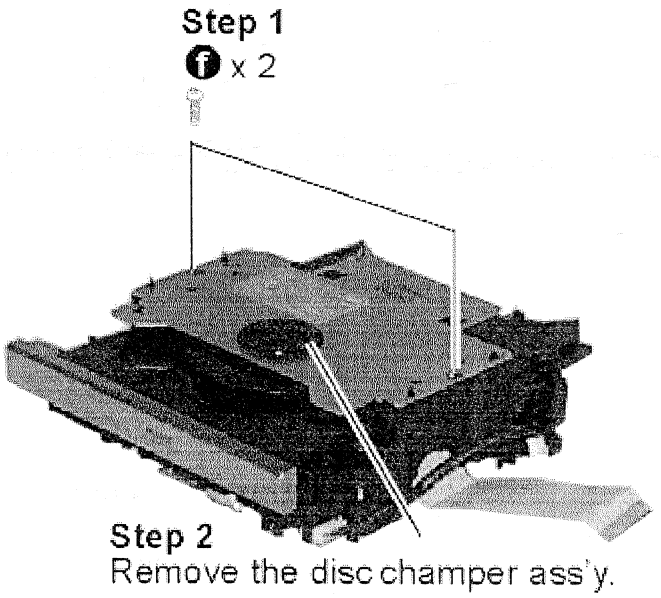
Step 1
Release the 2 claws.



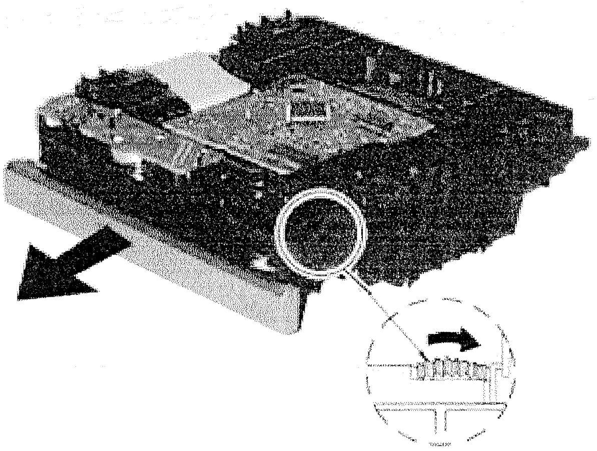
Step 2
Remove the cassette lid in the direction of arrow.

7.2.2. Replacement for the traverse deck ass'y.

- **Follow (step 1 to step 15) in checking procedures for each P.C.B.**


Step 1
🅕 x 2

Step 2
Remove the disc champer ass'y.

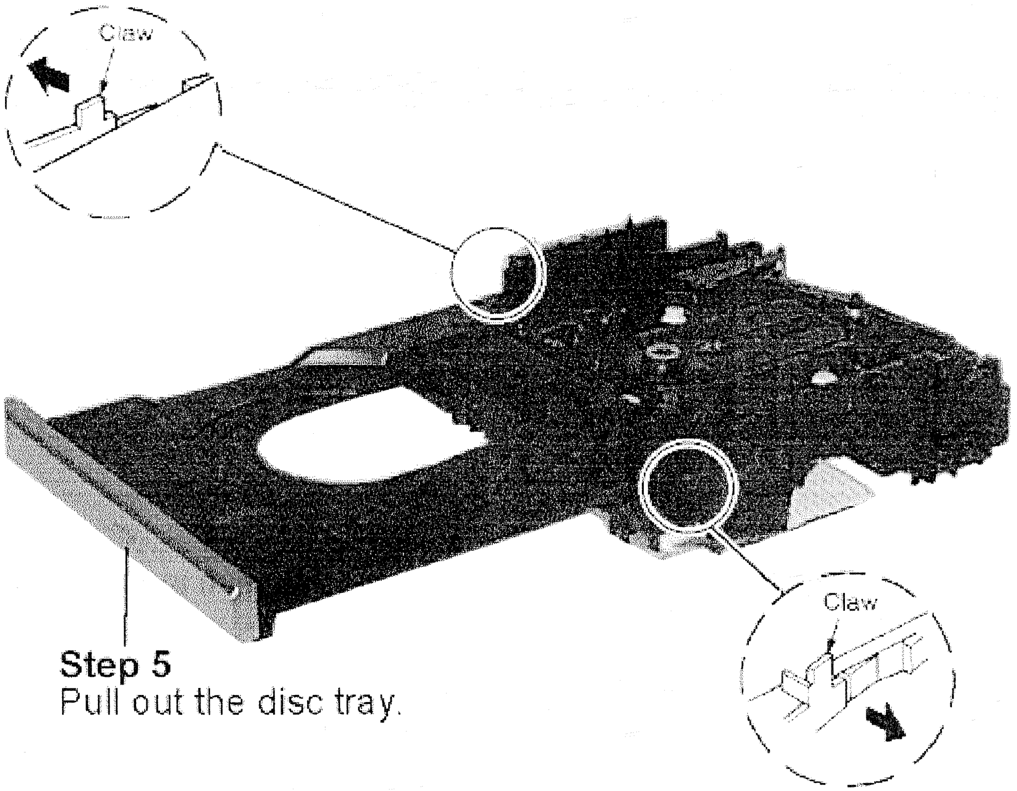


Step 3

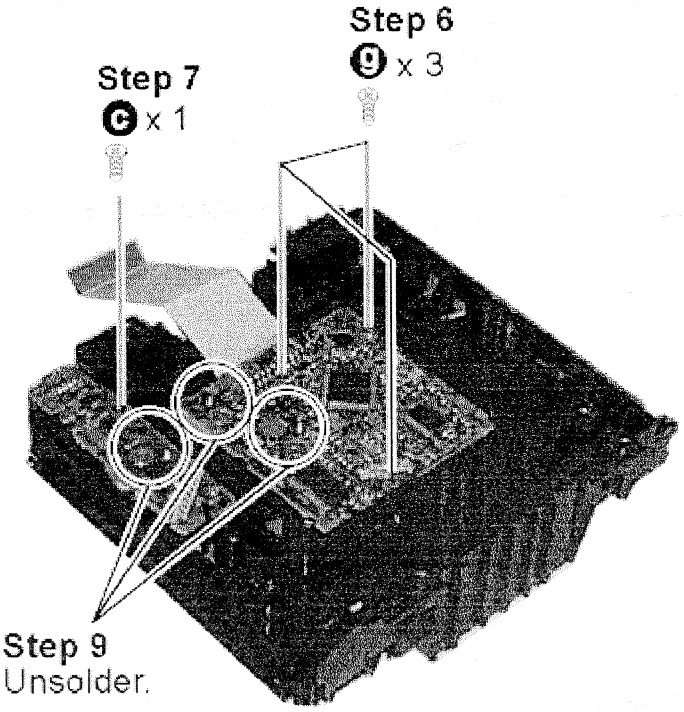
Rotate the gear, and then pull out the disc tray.

Step 4

Release the 2 claws.

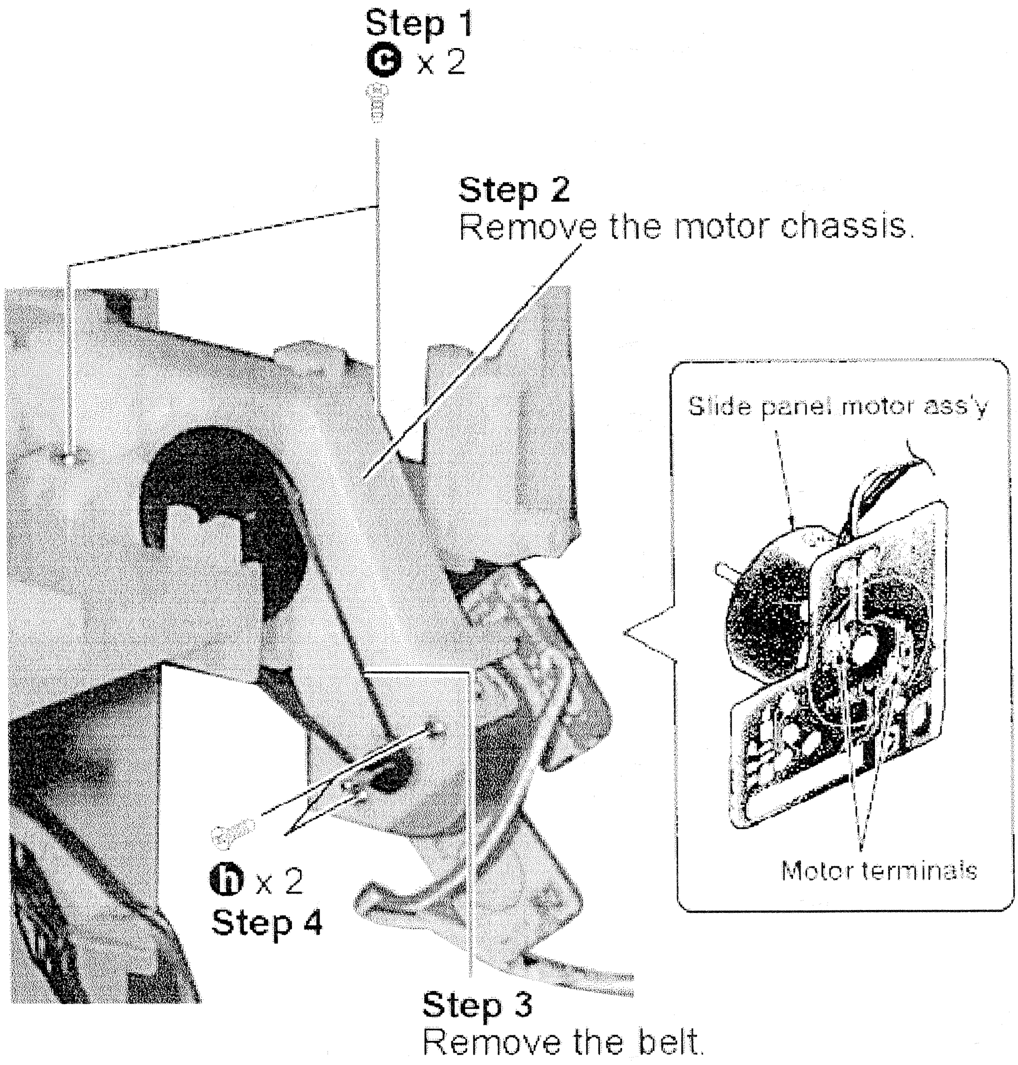


Step 5
Pull out the disc tray.


Step 7
C x 1
Step 6
g x 3
Step 9
Unsolder.

7.2.3. Replacement for the slide panel motor ass'y and belt.

- **Follow (step 1 to step 10) in checking procedures for each P.C.B..**



Step 1
C x 2

Step 2
Remove the motor chassis.

Step 3
Remove the belt.

h x 2
Step 4

Slide panel motor ass'y
Motor terminals

Step 5
Unsolder the motor terminals. (2 points)

8. Illustration of IC's, Transistors and Diodes

9. Terminal Function Of IC's

9.1. IC701 (AN8837SBE1) Servo Amplifier

Pin No.	Mark	I/O	Function
1	PDE	I	Tracking signal input terminal 1 (E ch)
2	PDF	I	Tracking signal input terminal 2 (F ch)
3	VCC	I	Power supply connection
4	PDA	I	Focus signal input terminal 1 (A ch)
5	PDB	I	Focus signal input terminal 2 (B ch)
6	LPD	I	Laser PD connection
7	LD	O	Laser power auto control output
8	RF	O	RF signal output
9	RFIN	I	RF signal input
10	CSBRT	I	Capacitor for detection connection
11	CEA	I	Capacitor connection for HPF amplifier
12	BDO	O	BDO output (“H” : drop out)
13	LDON	I	LD APC input (“H” : ON, “L” : OFF)
14	GND	—	Ground connection
15	/RFDET	O	NRFDET output (“L” : detection)
16	CROSS	O	CROSS output (Track cross signal output)
17	OFTR	O	Off-track output (“L” : ON track, “H” : OFF track)
18	VDET	O	VDET output (“H” : Vibration detected)
19	ENV	O	RF envelope detection
20	ENVOFF	I	Not used, connected to power supply
21	TEBPF	I	Oscillation detect signal input
22	TEN	I	Tracking error signal input
23	TEOUT	O	Tracking error signal output
24	FEOUT	O	Focus error signal output
25	FEN	I	Focus error signal input
26	VREF	O	Reference voltage output
27	TBAL	I	Tracking balance signal input
28	FBAL	I	Focus balance signal input

9.2. IC702 (MN662746RPK1) Servo processor / Digital signal processor / Digital filter / D/A converter

Pin No.	Mark	I/O	Function
1	BCLK	O	Serial bit clock output
2	LRCK	O	L/R discriminating signal output
3	SRDATA	O	Serial data
4	DVDD1	I	Power supply (digital circuit) terminal
5	DVSS1	—	GND (digital circuit) terminal
6	TX	O	Digital audio interface signal
7	MCLK	I	Microprocessor command clock signal
8	MDATA	I	Microprocessor command data signal
9	MLD	I	Microprocessor command load signal
10	SENSE	O	Sense signal output (Not used, open) (OFT, FESL, NACEND, NAJEND, POSCAD, SFG)
11	/FLOCK	O	Optical servo condition(focus)("L" : lead-in) (Not used, open)
12	/TLOCK	O	Optical servo condition(tracking)("L" : lead-in) (Not used, open)
13	BLKCK	O	Sub-code block clock (f=75Hz)
14	SQCK	I	External clock signal input for sub-code Q register.
15	SUBQ	O	Sub-code Q code output
16	DMUTE	—	Muting input ("H" : mute) (Not used, connected to GND)
17	STAT	O	Status signal output (CRC, CUE, CLVS, TTSTVP, FCLV, SQCK)
18	/RST	I	Reset input ("L" : reset)
19	SMCK	—	System clock (f=4.2336MHz) (Not used, open)
20	PMCK	—	1/192-divided clock signal of crystal oscillating (fPMCK=88.2kHz) (Not used, open)
21	TRV	O	Traverse servo control output
22	TVD	O	Traverse drive signal output
23	PC	O	Spindle motor ON signal output ("L" : ON)
24	ECM	O	Spindle motor drive signal output

24	ECM	O	Spindle motor drive signal output (forced mode output)

Pin No.	Mark	I/O	Function
25	ECS	O	Spindle motor drive signal output (servo error signal output)
26	KICK	O	Kick pulse output
27	TRD	O	Tracking drive output
28	FOD	O	Focus drive output
29	VREF	I	D/A (drive) output(TVD,ECS,TRD,FOD,FBAL, TBAL) Reference voltage input.
30	FBAL	O	Focus balance adjustment output
31	TBAL	O	Tracking balance adjustment output
32	FE	I	Focus error signal input (analog input)
33	TE	I	Tracking error signal input (analog input)
34	RFENV	I	RF envelope signal input
35	VDET	I	Vibration detection signal input (“H” : detection)
36	OFTR	I	Off-track signal input (“H” : off track)
37	TRCRS	I	Track cross signal input
38	/RFDET	I	RF detection signal input (“L” detection)
39	BDO	I	Dropout signal input (“H” : Dropout)
40	LDON	O	Laser on signal output (“H” : ON)
41	TES	O	Tracking error shunt signal output (“H” : shunt)
42	PLAY	O	Play signal out (“H” : PLAY) (Not used, open)
43	WVEL	O	Double speed status signal output (“H” : DS) (Not used, open)
44	ARF	I	RF signal input
45	IREF	I	Reference current input
46	DRF	I	DSL bias (Not used, open)
47	DSLF	I/O	DSL loop filter
48	PLLF	I/O	PLL loop filter
49	DSLF2	I/O	VCO loop filter (Not used, open)
50	AVDD2	I	Power supply input (for analog circuit)
51	AVSS2	—	GND (for analog circuit)
52	EFM	O	EFM signal output (Not used, open)

Pin No.	Mark	I/O	Function
53	PCK	O	PLL extraction clock output (Not used, open) (fPCK=4.3218MHz during normal playback)
54	TOUT	O	Phase comparison signal of EFM and PCK signals (Not used, open)
55	SUBC	O	Sub-code serial clock output
56	SBCK	I	Sub-code serial data signal input
57	VSS	—	GND
58	X1IN	I	Crystal oscillating circuit (f=16.9344MHz)
59	X2OUT	O	
60	VDD	I	Power supply input
61	BYTCK	O	Byte clock output (Not used, open)
62	/CLDCK	O	Sub-code frame clock signal (fCLDCK=7.35kHz : Normal)
63	FCLK	O	Crystal frame clock signal output (Not used, open)
64	IPFLAG	O	Interpolation flag output
65	FLAG	O	Flag output (Not used, open)
66	CLVS	O	Spindle servo phase synchronizing signal output ("H" : CLV,"L" : rough servo) (Not used, open)
67	CRC	O	Sub-code CRC checked output ("H" : OK, "L" : NG) (Not used, open)
68	RESY	O	De-emphasis ON signal output ("H" : ON) (Not used, open)
69	FLAG	O	Frame resynchronizing signal output) (Not used, open)
70	ARST	I	Reset input through MASH circuit (Not used, connected to GND)
71	/TEST	I	Test input (Not used, connected to power supply)
72	AVDD1	I	Power supply input (for analog circuit)
73	OUTL	O	Left channel audio signal output
74	AVSS1	—	GND
75	OUTR	O	Right channel audio signal output
76	RSEL	I	RF signal polarity assignment input

Pin No.	Mark	I/O	Function
77	CSEL	I	Crystal oscillating frequency designation input (Not used, connected to GND)
78	PSEL	I	Serial data input
79	MSEL	I	L ch/R ch clock signal input
80	PSEL	I	Audio bit clock input

9.3. IC703 (AN8780NSBE2) Focus coil / Tracking coil / Traverse motor / Spindle motor driver

Pin No.	Mark	I/O	Function
1	/RST	—	Not used, open
2	N.C.	—	Not used
3	IN2	I	Motor driver (2) input
4	PC2	I	Turntable motor drive signal ("L" : ON)
5	N.C.	—	Not used
6	IN1	I	Motor driver (1) input
7	PVCC1	I	Power supply (1) for driver
8	PGND1	—	Ground connection (1) for driver
9	N.C.	—	Not used, connected to GND
10	D1-	O	Motor driver (1) reverse-action output
11	D1+	O	Motor-driver (1) forward-action output
12	D2-	O	Motor driver (2) reverse-action output
13	D2+	O	Motor-driver (2) forward-action output
14	D3-	O	Motor driver (3) reverse-action output
15	D3+	O	Motor-driver (3) forward-action output
16	D4-	O	Motor driver (4) reverse-action output
17	D4+	O	Motor-driver (4) forward-action output
18	N.C.	—	Not used, open
19	PGND2P	—	Ground connection (2) for driver
20	PVCC2	I	Power supply (2) for driver
21	VCC	I	Power supply terminal
22	VREF	I	Reference voltage input
23	IN4	I	Motor driver (4) input

Pin No.	Mark	I/O	Function
24	IN3	I	Motor driver (3) input
25	RSTIN	I	Reset terminal (Not used, connected to GND)
26	N.C.	—	Not used, connected to GND

9.4. IC801 (M8258M054FP) System Microprocesor

Pin No.	Mark	I/O	Function
1	N.C.	—	Not used
2	VL1	—	LCD power supply
3	MK_IN1	I/O	Signal detect input 1
4	MK_IN2	I/O	Deck Signal detect input 2
5	CR_TMR	I/O	CR timer
6	PWRDET	I/O	Power detection signal input
7	TRBL_VR	I/O	Treble detection signal
8	BASS_VR	I/O	Bass detection signal
9	KEY 2	I/O	Key 2
10	KEY 1	I/O	Key 1
11	T_MUTE	O	Tuner mute output (H: mute ON)
12	PLL_CE	O	Tuner PLL chip enable output
13	PLL_CL	O	PLL IC clock output
14	PLL_D1	O	Tuner PLL control data output
15	PLL_DO	I/O	PLL count data
16	SD	I/O	Tuner signal detect input
17	SYNC/HALT	I/O	AC power drop detection
18	RMT_IN	I/O	Remote control signal output
19	OPT SELECT/ECS	I/O	Operation select signal
20	SQCK	I/O	CD subcode clock output
21	DES1/ECLK	I/O	Detection setting terminal 1
22	SUBQ	I/O	CD subcode data input
23	BLKCK	I/O	CD block clock input
24	RESTSW	I/O	CD REST detect SW input
25	CDRST	I/O	CE reset output
26	STAT	I/O	CD signal processor status input
27	DMT	I/O	Deck mute signal
28	BP	I/O	Beat proof switch control
29	RECH	I/O	Record detection signal

Pin No.	Mark	I/O	Function
30	CR02	I/O	Tape select CrO2 signal
31	EDATA	I/O	Data enable output
32	PCNT	I/O	Power control output
33	MUTEA	I/O	Audio mute output (L: mute ON)
34	DES2	I	Destination setting terminal 2
35	RESET	—	RESET input
36	XCIN	—	X'tal oscillator (f=32.768 kHz sub clock)
37	XCOUT	—	X'tal oscillator (f=32.768 kHz sub clock)
38	XIN	—	X'tal oscillator (f=6.0 MHz Main clock)
39	XOUT	—	X'tal oscillator (f=6.0 MHz Main clock)
40	GND	—	Ground
41	MBP1	I/O	MPU beat proof output 1
42	MBP2	I/O	MPU beat proof output 2
43	DES3	I/O	Destination setting terminal 3
44	KEY_LED	I	LED control switch
45	CD_CLOSE	I/O	CD tray close control output
46	CD_OPEN	I/O	CD tray open control output
47	JOG2	I/O	Volume jog dial input 2
48	JOG1	I/O	Volume jog dial input 1
49	CD CLS_SW	I/O	CD tray close detection SW (L: close)
50	CD_OPN_SW	I/O	CD tray open detection SW (L: close)
51	PANEL_CLOSE	O	Panel close detection switch
52	PANEL_OPEN	O	Panel open detection switch
53	MLD	I/O	CD command load output
54	MDATA	I/O	CD command data output
55	MCL	I/O	CD command clock output
56	ASP_LATCH	I/O	ASP latch output
57	ASP_DATA	I/O	ASP data output
58	ASP CLK	I/O	ASP clock output
59	N.C.	I/O	Not used, connected to GND
60~90	SEG30~0	O	LCD segment output
91	VDD	—	Power supply (+5)
92	VREF	—	Reference voltage for AD (VDD)
93	AVSS	—	Reference oltage for AD (VSS)
94	COM3	O	LCDcommon output

Pin No.	Mark	I/O	Function
94	COM3	O	LCDcommon output
95	COM2	O	LCDcommon output
96	COM1	O	LCDcommon output
97	COM0	O	LCDcommon output
98	VL3	—	LCD bias setting
99	VL2	—	LCD bias setting
100	N.C.	—	Not used

10. Block Diagram

11. Schematic Diagram

(All schematic diagrams may be modified at any time with the development of new technology.)

Notes:

S701 : CD reset switch
S971: Deck 2 Mode detect switch
S972: Deck 2 Tape detect switch
S973 Deck 2 CrO2 detect switch
S974 Deck 2 Record detect switch
S975 Deck 2 Record detect switch
SW790 : CD tray open detect switch
SW791 : CD tray close detect switch
SW801 : Tuner/band select switch (TUNER/BAND)
SW802 : Tuning mode select switch (TUNER MODE)
SW803 : Memory switch (MEMORY)
SW804 : Record/record pause switch
SW805 : Rewind TPS switch
SW806 : Fast forward switch
SW807 : AUX switch (AUX)
SW808 : Cassette stop switch
SW809 : Cassette play/direction switch
SW810 : Cassette holder open switch
SW811 : Tuning/time adjust switch (TUNE/TIME ADJ DOWN/-)

SW812 : Tuning/time adjust switch (TUNE/TIME ADJ UP/+)
SW813 : Glide panel open/close switch (OPEN/CLOSE)
SW814 : Clock/timer switch (CLOCK/TIMER)
SW815 : Play timer/record timer switch
SW816 : Power switch
SW817 : Auto off switch (AUTO OFF)
SW818 : CD off switch (CD EDIT)
SW819 : Skip/search switch
SW820 : Skip/search switch
SW821 : CD stop switch
SW822 : CD play/pause switch
SW823 : CD tray open/close switch
VR801 : Volume control VR (VOLUME)
VR802 : Bass control VR (BASS)
VR803 : Treble control VR (TREBLE)

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveformsdepending upon the internal impedance of the tester or the measuring unit.

< > : FM   No Mark : Tape
( ) : AM
(( )) : CD

- Importance safety notice:
  Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistor), high-quality sound (capacitors), low-noise (resistor), etc. are used. When replacingany of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution !

IC, LSI and VLSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.

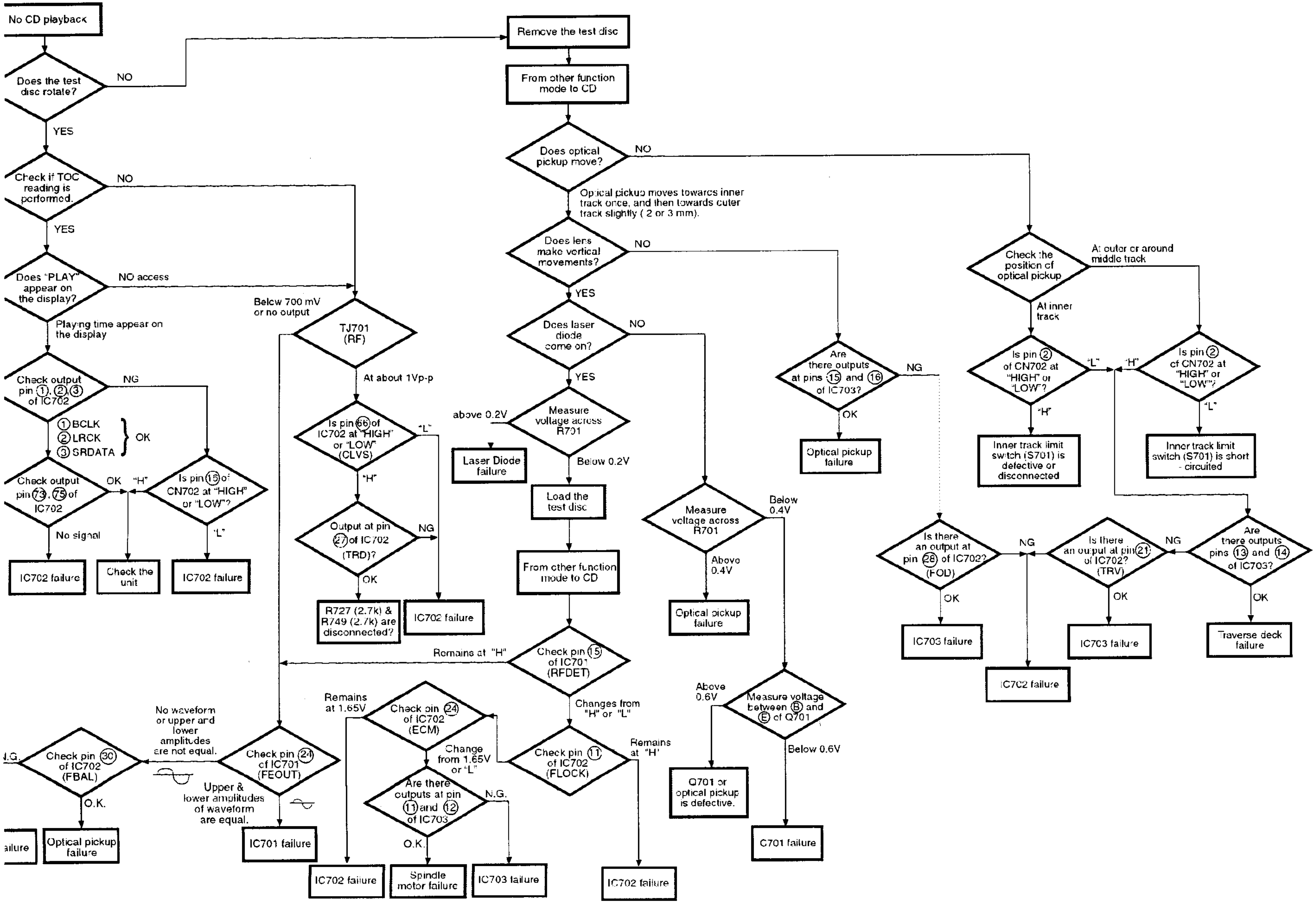
- Cover the parts boxes made of plastics with aluminium foil.
- Put a conductive mat on the work table.
- Ground the soldering iron.
- Do not touch the pins of IC, LSI or VLSI with fingers directly.

12. Printed Circuit Board

(This printed circuit board diagram may be modified at any time with the development of new technology.)

13. Wiring Connection Diagram

14. Troubleshooting Guide


No CD playback
Does the test disc rotate?
NO
YES
Check if TOC reading is performed.
NO
YES
Does "PLAY" appear on the display?
NO access
Playing time appear on the display
Check output pin ①, ②, ③ of IC702
NG
① BCLK
② LRCK
③ SRDATA
OK
Check output pin ⑬, ⑮ of IC702
OK
"H"
Is pin ⑮ of CN702 at "HIGH" or "LOW"?
"L"
No signal
IC702 failure
Check the unit
IC702 failure
Below 700 mV or no output
TJ701 (RF)
At about 1Vp-p
Is pin ⑯ of IC702 at "HIGH" or "LOW" (CLVS)
"L"
"H"
Output at pin ㉗ of IC702 (TRD)?
NG
OK
R727 (2.7k) & R749 (2.7k) are disconnected?
IC702 failure
Remove the test disc
From other function mode to CD
Does optical pickup move?
NO
Optical pickup moves towards inner track once, and then towards outer track slightly (2 or 3 mm).
Does lens make vertical movements?
NO
YES
Does laser diode come on?
NO
YES
above 0.2V
Measure voltage across R701
Laser Diode failure
Below 0.2V
Load the test disc
From other function mode to CD
Remains at "H"
Check pin ⑮ of IC701 (RFDET)
Changes from "H" or "L"
Remains at 1.65V
Check pin ㉔ of IC702 (ECM)
Change from 1.65V or "L"
Are there outputs at pin ⑪ and ⑫ of IC703
N.G.
O.K.
IC702 failure
Spindle motor failure
IC703 failure
Check pin ⑪ of IC702 (FLOCK)
Remains at "H"
IC702 failure
No waveform or upper and lower amplitudes are not equal.
Check pin ㉔ of IC701 (FEOUT)
Upper & lower amplitudes of waveform are equal.
IC701 failure
N.G.
Check pin ㉚ of IC702 (FBAL)
O.K.
ailure
Optical pickup failure
Measure voltage across R701
Below 0.4V
Above 0.4V
Optical pickup failure
Above 0.6V
Measure voltage between Ⓑ and Ⓔ of Q701
Below 0.6V
Q701 or optical pickup is defective.
C701 failure
Are there outputs at pins ⑮ and ⑯ of IC703?
NG
OK
Optical pickup failure
Check the position of optical pickup
At outer or around middle track
At inner track
Is pin ② of CN702 at "HIGH" or "LOW"?
"L"
"H"
Inner track limit switch (S701) is defective or disconnected
Is pin ② of CN702 at "HIGH" or "LOW"?
"H"
"L"
Inner track limit switch (S701) is short - circuited
Is there an output at pin ㉘ of IC702? (FOD)
NG
OK
IC703 failure
IC702 failure
Is there an output at pin ㉑ of IC702? (TRV)
NG
OK
IC703 failure
Are there outputs pins ⑬ and ⑭ of IC703?
OK
Traverse deck failure

15. Parts Location and Replacement Parts List

Note:

- **Important safety notice:**
  Components identified by ⚠ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardent (resistors), high-quality sound (capacitors), low noise (resistors), etc are used.
  When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.
- **The parenthesized indications in the Remarks columns specify the areas or colour. (Refer to the cover page for area or colour)**
  Parts without these indications can be used for all areas.
- **Warning: This product uses a laser diode. Refer to caution statements on page 3.**
  ACHTUNG:
- **Die Lasereinheit nicht zerlegen.**
- **Die Lasereinheit darf nur gegen eine vom Hertsteller spezifizierte Einheit ausgetauscht werden.**
- **Capacitor values are in microfarads (µF) unless specified otherwise, P= Pico-farads (pF), F= Farads.**
- **Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM).**
- **The marking (RTL) indicates that the Retention Time is limited for this items. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of a availabilityis dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.**
- **[M] Indicates in the Remarks columns indicates parts supplied by MESA.**
- **The "(SF)" mark denotes the standard part.**
- **Remote Control Unit: Supply period for three years from terminal of production.**
- **Reference for O/I book languages are as follows:**

r :	Arabic	Du :	Dutch	It :	Italian	Sp :	Spanish
f :	Canadian French	En :	English	Ko :	Korean	Sw :	Swedish
z :	Czech	Fr :	French	Po :	Polish	Co :	Traditional Chinese
a :	Danish	Ge :	German	Ru :	Russian	Cn :	Simplified Chinese

15.1. Deck Mechanism (RAA4106)

15.1.1. Deck Mechanism Parts Location

15.1.2. Deck Mechanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CASSETTE DECK	
101	RED0043	R/P HEAD BLOCK UNIT	[M]
101-1	RHD17015	SCREW	[M]
103	RDG0300	REEL BASE GEAR	[M]
104	RDG0301	WINDING RELAY GEAR	[M]
105	RDK0026	MAIN GEAR	[M]
107	RDV0033-4	WINDING BELT	[M]
108	RDV0034-1	CAPSTAN BELT ‘A’	[M]
110	RMB0312	TRIGGER LEVEL SPRING	[M]
111	RMB0400	REEL SPRING	[M]
112	RMB0403	HEAD PANEL SPRING	[M]
113	RMB0404	BRAKE ROD SPRING	[M]
114	RMB0406	FR LEVER SP	[M]
115	RMB0408	THRUST SPRING	[M]
116	RML0370	TRIGGER LEVER	[M]
117	RML0371	FR LEVER	[M]
118	RML0372	WINDING LEVER	[M]
119	RML0374	EJECT LEVER	[M]
120	RMM0131	BRAKE ROD	[M]
121	RMM0133-1	EJECT ROD	[M]
122	RMQ0519	REEL HUB	[M]
123	RMS0398-1	MOVING CORE	[M]
124	RSJ0003	PLUNGER	[M]
125	RMC0061	PACK SPRING	[M]
126	RXF0049	FLYWHEEL ‘F’ ASS’Y	[M]
127	RXF0050	FLYWHEEL ‘R’ ASS’Y	[M]
128	RXG0040	FF RELAY GEAR ASS’Y	[M]
129	RMK0283A-J	SUB CHASSIS	[M]
130	RXL0124	PINCH ARM ‘F’ ASS’Y	[M]
130-1	RMB0401	PINCH ARM SPRING ‘F’	[M]
131	RXL0125	PINCH ARM ‘R’ ASS’Y	[M]
131-1	RMB0402	PINCH ARM SPRING ‘R’	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
132	RXL0126	WINDING ARM ASS'Y	[M]
133	RXQ0412	HEAD PANEL ASS'Y	[M]
133-1	RMB0405	FR ROD SPRING	[M]
133-2	RMM0132	FR ROD	[M]
134	RFKPXES50GCK	CAP MOTOR ASS'Y	[M]
135	RHD26022	MOTOR SCREW	[M]
136	XTW2+5L	HEAD BLOCK UNIT SCRE	[M]
137	XTW26+10S	SUB-CHASSIS SCREW	[M]
138	XYC2+JF17	PCB EARTH SCREW	[M]
139	RFKJSTR280PP	CHASSIS ASS'Y	[M]

15.2. CD Loading Mechanism

15.2.1. CD Loading Mechanism Parts Location

15.2.2. CD Loading Mechanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		TRAVERSE DECK	
301	RFKJXDT07-K	TRAV. CHASSIS ASS'Y	[M]
301-1	RDG0142	INTERMEDIATE GEAR	[M]
301-2	RDG0193	DRIVE GEAR (1)	[M]
301-3	RDP0065	INTERMEDIATE PULLEY	[M]
302	REM0019	LOADING MOTOR ASS'Y	[M]
303	RMK0255	BELT COVER	[M]
304	RGQ0144-K	DISC TRAY	[M]
305	RAE0152Z-3	TRAVERSE UNIT	[M]
305-1	SHGD113-1	FLOATING RUBBER (A)	[M]
305-2	SNSD38	SCREW	[M]
306	RMS0350	FIXED PIN B	[M]
307	RMS0123-1	FIXED PIN A	[M]
308	RME0109	FLOATING SPRING A	[M]
309	RME0142	FLOATING SPRING B	[M]
310	RMR0698-K	TRAVERSE CHASSIS	[M]
311	XTV2+6G	SCREW	[M]
312	RME0063	LOCK LEVER SPRING	[M]
313	RMM0079-1	SLIDE PLATE (1)	[M]
314	RML0178-1	LOCK LEVER	[M]
315	RFKNLPG440-K	DRIVE GEAR (2) ASS'Y	[M]
316	RHD20009-1	SCREW	[M]
317	RME0087	ASSISTANCE SPRING	[M]
318	RML0349	CONVERSION LEVER	[M]
319	RMM0059-1	SLIDE PLATE (2)	[M]
320	RMR0334	FIXED PLATE	[M]
321	RHM245ZA	MAGNET	[M]
322	RXQ0380	MAGNET HOLDER ASS'Y	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
323	XTN26+6G	SCREW	[M]
324	RMA0793	CLAMP PLATE	[M]
325	XYN2+F6FZ	SCREW (MOOTOR)	[M]
326	RMG0158	BELT	[M]
327	XTN26+6G	SCREW	[M]
328	RXQ0304-1	NUT PLATE ASS'Y	[M]
329	RXQ0339	TRAVERSE MOTOR ASS'Y	[M]
330	XQN17+CG5	NUT PLATE ASS'Y SCRE	[M]

15.3. Cabinet

15.3.1. Cabinet Parts Location

15.3.2. Cabinet Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RFKGAPM20EBS	FRONT PANEL ASS'Y	[M]
1-1	RKA0095-K	LEG FELT	[M]
2	REX0963Y	6P (CD UNIT-MAIN)	[M]
9	XTV3+10F	SCREW (HEAT SINK)	[M]
10	RGP0620-W	LCD SPACER SHEET	[M]
11	RMN0530	LCD HOLDER	[M]
13	RMR1094-W	DISORDER SHEET	[M]
16	RGP0721A-Q	LCD PANEL	[M]
17	RGP0724-S	CASS. LID	[M]
18	RGW0267-S	BASS TREBLE KNOB	[M]
19	RGW0268-S	VOLUME KNOB	[M]
20	RHD30007-S	SCREW	[M]
21	RKA0095-K	LEG FELT	[M]
22	RKM0355Z-S	TOP CABINET	[M]
23	RGU1760A-S	FAMILY BUTTON	[M]
24	RGP0723-S	BUTTON PANEL	[M]
25	RHN90001	M9 NUT	[M]
26	RGP0727-Q	LIGHTING PANEL	[M]
27	RGP0728-Q	DISORDER PANEL	[M]
28	RMQ0871	LAMP PLATE	[M]
29	RMR1220-W	LAMP COVER	[M]
30	RGU1571-S	CONTROL BUTTON	[M]
31	RMK0419	BUTTON CHASSIS	[M]
32	RDG0402	RACK L	[M]
33	RDG0403	RACK R	[M]
34	RDG0404	GEAR	[M]

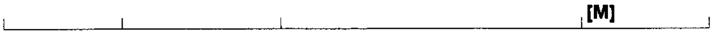
Ref. No.	Part No.	Part Name & Description	Remarks
35	RDG0405	TRANSFER GEAR	[M]
36	RDK0032	KNOB CAM	[M]
37	RHD26016	SCREW (PHONE JACK)	[M]
38	RMB0533	KNOB SPRING	[M]
39	RMK0368	SLIDE PANEL CHASSIS	[M]
40	RMS0596	GUIDE SHAFT	[M]
41	RMS0598	KNOB SHAFT	[M]
42	RDP0056	BELT PULLEY	[M]
43	RMG0158	BELT	[M]
44	RMR1095-WJ	GEAR FIXTURE	[M]
45	XQN2+C3	SCREW	[M]
46	RMB0477	CASS OPEN SPRING	[M]
47	RYP0906-S	SLIDE PANEL UNIT	[M]
47-1	RMA1089	SLIDE MECHA ANGLE	[M]
47-2	XTV26+6G	SCREW	[M]
48	XTBS26+10J	SCREW	[M]
49	XTV3+10G	SCREW	[M]
50	REE0799	CD FFC	[M]
51	REE0800	33P FFC	[M]
52	RGK1144-S	CD LID	[M]
53	RFKHAPM22GNS	REAR COVER ASS'Y	[M]GN
53	RFKHAPM22GTS	REAR COVER ASS'Y	[M]GT
54	RMK0370	BOTTOM CHASSIS	[M]
56	XTB3+10JFZ	SCREW	[M]
57	RFKPAPM15EGS	MOTOR ASS'Y	[M]
58	RFKLAPM15EGS	CASS HOLDER ASS'Y	[M]
58-1	RUS757ZAA	CASS HALF SPRING	[M]
59	RMY0210	HEAT SINK	[M]
60	RSC0491	TUNER SHIELD	[M]
61	RMS0597	MAIN SHAFT	[M]
62	RDG0357	DUMPER GEAR	[M]
63	RSC0492	HEAD SHIELD	[M]
64	RMZ0339	ZNR COVER	[M]
65	RSC0027-L	SHIELD CASE	[M]

15.4. Electrical Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		P.C.B.	
	REP1960A	LOADING MOTOR ASS'Y	[M](RTL)
	REP1999B	TUNER PACK UNIT	[M](RTL)
	REP2767C	TUNER/CONTROL PCB UN	[M](RTL)GN
	REP2767E	TUNER/CONTROL PCB UN	[M](RTL)GT
	REP2950C	MAIN PCB	[M](RTL)GN
	REP2950E	MAIN PCB	[M](RTL)GT
	REPX0108	R/P PCB UNIT	[M](RTL)
	REPX0144	SERVO PCB UNIT	[M](RTL)
		INTEGRATED CIRCUITS	
IC101	LA1833MN-TLM	IC IF & MPX	[M]
IC102	LC72131MDTRM	IC PLL	[M]
IC601	BH3857AFV-E2	IC SOUND PROCESSOR	[M]
IC602	AN7135	IC POWER AMP	[M] ⚠
IC603	LA4705NA	IC POWER	[M] ⚠
IC701	AN8837SBE1	IC HEAD AMP	[M]
IC702	MN662746RPK1	IC LSI	[M]
IC703	AN8780NSBE2	IC	[M]
IC790	TA7291S	IC LOADING MOTOR CD	[M]
IC801	M38258M054FP	IC MICROPROCESSOR	[M]
IC802	BA6283N	IC MOTOR DRIVER	[M]
IC971	0N2180RLC	IC PHOTO INTERUPTOR	[M]
IC1301	BA7755A	IC ANALOG SW	[M]
IC1302	TA8142AP	IC PB/REC PRE-AMP	[M]
IC1303	BA4558FE2	IC OP AMP	[M]
		TRANSISTORS	
Q1	2SC1740SRTA	TRANSISTOR	[M]
Q1	2SK544F-AC	TRANSISTOR	[M]
Q2	2SC2786MTA	TRANSISTOR	[M]
Q3	2SC2787FL1TA	TRANSISTOR	[M]
Q4	2SC2787FL1TA	TRANSISTOR	[M]
Q101	2SC2787LTA	TRANSISTOR	[M]
Q106	RVTDTA114EST	TRANSISTOR	[M]
Q401	2SC1740SRTA	TRANSISTOR	[M]
Q402	2SC1740SRTA	TRANSISTOR	[M]
Q404	2SC1740SLNST	TRANSISTOR	[M]
Q406	2SC1740SRTA	TRANSISTOR	[M]
Q501	2SC1740SRTA	TRANSISTOR	[M]
Q502	2SC1740SRTA	TRANSISTOR	[M]
Q504	2SC1740SLNST	TRANSISTOR	[M]
Q505	2SC1740SLNST	TRANSISTOR	[M]
Q506	2SC1740SRTA	TRANSISTOR	[M]
Q507	2SC2001LTA	TRANSISTOR	[M]
Q603	RVTDTA114YST	TRANSISTOR	[M]
Q606	RVTDTA114EST	TRANSISTOR	[M]
Q607	RVTDTA143XST	TRANSISTOR	[M] ⚠
Q608	2SC1740SRTA	TRANSISTOR	[M] ⚠
Q609	2SA952LTA	TRANSISTOR	[M] ⚠

Ref. No.	Part No.	Part Name & Description	Remarks
Q610	2SB1566E	TRANSISTOR	[M] ⚠
Q611	2SC1740SRTA	TRANSISTOR	[M] ⚠
Q612	RVTDTA143TST	TRANSISTOR	[M] ⚠
Q613	RVTDTA114YST	TRANSISTOR	[M]
Q614	RVTDTC114EST	TRANSISTOR	[M]
Q615	2SD2037ETA	TRANSISTOR	[M]
Q616	2SD592ARTA	TRANSISTOR	[M] ⚠
Q617	RVTDTA114EST	TRANSISTOR	[M] ⚠
Q618	RVTDTC114EST	TRANSISTOR	[M] ⚠
Q620	2SC1740SRTA	TRANSISTOR	[M]
Q621	RVTDTA114EST	TRANSISTOR	[M]
Q692	2SD592ARTA	TRANSISTOR	[M]
Q693	2SD592ARTA	TRANSISTOR	[M] ⚠
Q701	2SA1037AKSTX	TRANSISTOR	[M]
Q702	DTC114YKA146	TRANSISTOR	[M]
Q801	2SC2001KTA	TRANSISTOR	[M] ⚠
Q802	2SC2001KTA	TRANSISTOR	[M] ⚠
Q803	2SC1740SRTA	TRANSISTOR	[M] ⚠
Q804	RVTDTC144EST	TRANSISTOR	[M]
Q806	RVTDTC144EST	TRANSISTOR	[M]
Q807	2SC1740SRTA	TRANSISTOR	[M]
Q808	2SC1740SRTA	TRANSISTOR	[M]
Q811	RVTDTC144EST	TRANSISTOR	[M]
Q812	2SA1309AQSTA	TRANSISTOR	[M]
Q813	2SA1309AQSTA	TRANSISTOR	[M]
Q814	2SD592ARTA	TRANSISTOR	[M] ⚠
Q815	2SC1740SRTA	TRANSISTOR	[M]
Q816	2SC1740SRTA	TRANSISTOR	[M]
Q819	2SA1309AQSTA	TRANSISTOR	[M]
Q820	RVTDTC144EST	TRANSISTOR	[M]
Q1101	2SJ498CTA	TRANSISTOR	[M]
Q1102	2SJ498CTA	TRANSISTOR	[M]
Q1103	2SC1740SRTA	TRANSISTOR	[M]
Q1104	2SC1740SRTA	TRANSISTOR	[M]
Q1105	2SJ498CTA	TRANSISTOR	[M]
Q1106	RVTDTC124TST	TRANSISTOR	[M]
Q1201	2SJ498CTA	TRANSISTOR	[M]
Q1202	2SJ498CTA	TRANSISTOR	[M]
Q1203	2SC1740SRTA	TRANSISTOR	[M]
Q1204	2SC1740SRTA	TRANSISTOR	[M]
Q1205	2SJ498CTA	TRANSISTOR	[M]
Q1206	RVTDTC124TST	TRANSISTOR	[M]
Q1302	2SC1845FTA	TRANSISTOR	[M]
Q1303	2SC2001LTA	TRANSISTOR	[M]
Q1304	RVTDTC114TST	TRANSISTOR	[M]
Q1305	2SC1740SRTA	TRANSISTOR	[M]
Q1306	2SC1740SRTA	TRANSISTOR	[M]
Q1307	2SC1740SRTA	TRANSISTOR	[M]
Q1308	2SC1740SRTA	TRANSISTOR	[M]
Q1309	2SC1740SRTA	TRANSISTOR	[M]
Q1310	RVTDTC114EST	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q1311	RVTDTC143XST	TRANSISTOR	[M]
Q1313	2SC1740SRTA	TRANSISTOR	[M]
Q1317	RVTDTA143XST	TRANSISTOR	[M]
Q1318	RVTDTA143XST	TRANSISTOR	[M]
Q1319	2SD965RTA	TRANSISTOR	[M]
Q1320	2SB1030RTA	TRANSISTOR	[M]
Q1330	2SC1740SRTA	TRANSISTOR	[M]
		DIODES	
D1	RL1N4003N02	DIODE	[M] ⚠
D1	SVC211SPA-AL	DIODE	[M]
D2	RL1N4003N02	DIODE	[M] ⚠
D2	SVC211SPA-AL	DIODE	[M]
D3	RL1N4003N02	DIODE	[M] ⚠
D3	SVC211SPA-AL	DIODE	[M]
D4	RL1N4003N02	DIODE	[M] ⚠
D5	RVD1SS133TA	DIODE	[M]
D101	MTZJ5R1BTA	DIODE	[M]
D602	RL1N4003N02	DIODE	[M]
D603	RL1N4003N02	DIODE	[M]
D605	RVD1SS133TA	DIODE	[M]
D606	RVD1SS133TA	DIODE	[M]
D607	MTZJ9R1ATA	DIODE	[M] ⚠
D609	1SS291TA	DIODE	[M]
D610	MTZJ24DTA	DIODE	[M] ⚠
D611	RL1N4003N02	DIODE	[M] ⚠
D612	MTZJ5R6CTA	DIODE	[M]
D616	RL1N4003N02	DIODE	[M]
D625	RVD1SS133TA	DIODE	[M]
D626	RVD1SS133TA	DIODE	[M]
D627	RB441Q40T77	DIODE	[M]
D646	MTZJ5R1BTA	DIODE	[M]
D693	RVD1SS133TA	DIODE	[M]
D694	MTZJ5R1BTA	DIODE	[M] ⚠
D696	MTZJ7R5BTA	DIODE	[M] ⚠
D697	RVD1SS133TA	DIODE	[M]
D698	1D3E	DIODE	[M]
D699	1SS291TA	DIODE	[M]
D808	LN282RPXTA	DIODE	[M]
D809	RVD1SS133TA	DIODE	[M]
D810	1SS291TA	DIODE	[M]
D811	RVD1SS133TA	DIODE	[M]
D812	MTZJ5R6ATA	DIODE	[M] ⚠
D813	1SS291TA	DIODE	[M]
D814	MTZJ15CTA	DIODE	[M] ⚠
D815	MTZJ8R2BTA	DIODE	[M]
D816	SLR325MCT31	DIODE	[M]
D820	RVD1SS133TA	DIODE	[M]
D901	1N5402BM21	DIODE	[M] ⚠
D902	1N5402BM21	DIODE	[M] ⚠


[M]

Ref. No.	Part No.	Part Name & Description	Remarks
D903	1N5402BM21	DIODE	[M] ⚠
D904	1N5402BM21	DIODE	[M] ⚠
D971	MA165TA	DIODE	[M]
D1301	RVD1SS133TA	DIODE	[M]
D1303	RVD1SS133TA	DIODE	[M]
		VARIABLE RESISTORS	
VR801	RRV16B24104G	VR ROTARY ENCORDER	[M]
VR802	RRV11A03B54A	VR ENCORDED	[M]
VR803	RRV11A03B54A	VR ENCORDED	[M]
		SWITCHES	
S701	RSH1A043-U	SW, REST	[M]
S971	RSH1A018-3U	SW MODE	[M]
S972	RSH1A019-2U	SW, LEAF	[M]
S973	RSH1A019-2U	SW, LEAF	[M]
S974	RSH1A019-2U	SW, LEAF	[M]
S975	RSH1A019-2U	SW, LEAF	[M]
SW790	RSH1A005	SW, OPEN	[M]
SW791	RSH1A005	SW, CLOSE	[M]
SW801	EVQ21405R	SW TUNER BAND	[M]
SW802	EVQ21405R	SW TUNER MODE	[M]
SW803	EVQ21405R	SW MEMORY/SET	[M]
SW804	EVQ21405R	SW REC/REC PAUSE	[M]
SW805	EVQ21405R	SW REW	[M]
SW806	EVQ21405R	SW FF	[M]
SW807	EVQ21405R	SW AUX	[M]
SW808	EVQ21405R	SW TAPE STOP	[M]
SW809	EVQ21405R	SW TAPE PLAY	[M]
SW810	EVQ21405R	SW TAPE EJECT	[M]
SW811	EVQ21405R	SW DOWN	[M]
SW812	EVQ21405R	SW UP	[M]
SW813	EVQ21405R	SW OPEN	[M]
SW814	EVQ21405R	SW CLOCK/TIMER	[M]
SW815	EVQ21405R	SW TIMER PLAY/REC	[M]
SW816	EVQ21405R	SW POWER	[M]
SW817	EVQ21405R	SW AUTO OFF	[M]
SW818	EVQ21405R	SW CD EDIT	[M]
SW819	EVQ21405R	SW R.SKIP	[M]
SW820	EVQ21405R	SW F.SKIP	[M]
SW821	EVQ21405R	SW CD STOP	[M]
SW822	EVQ21405R	SW CD PLAY/PAUSE	[M]
SW823	EVQ21405R	SW CD OPEN/COSE	[M]
		CONNECTORS	
CN701	RJS2A6016	16P FFC CONNECTOR	[M]
CN702	RJS1A6723-1Q	23P FFC CONNECTOR	[M]
CP790	RJP6G17ZA	6P CONNECTOR	[M]
CP790	RJP6G18ZA	6P CONNECTOR	[M]
CP802	RJP7G18ZA	CONNECTOR	[M]
CP804	RJT029W02V-1	MOTOR CONNECTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
CP1301	RJS1A6805-J	CONNECTOR	[M]
CP1902	RJT071K09A	CONNECTOR	[M]
CS702	RJS1A9423	FFC CONNECTOR	[M]
CS800	RJS1A5203	3P CONNECTOR	[M]
CS801	RJS1A9430	30P FFC CONNECTOR	[M]
CS802	RJS1A5206	TO TUNER PCB	[M]
CS901	RJT029W007-1	7P CONNECTOR	[M]
CS902	RJT029W004-1	4P CONNECTOR	[M]
CS971	RJU071H09M1	CONNECTOR	[M]
CS1301	RJS9T7ZA	9P CONNECTOR	[M]
CS1303	RJS1A5208	8P MOLEX	[M]
CS8011	RJS1A9430	30P FFC CONNECTOR	[M]
		COILS & TRANSFORMERS	
L1	RLQZ271M	AC LINE COIL	[M] ⚠
L1	RLQZP1R2JT-Y	RF CHOKE COIL	[M]
L2	RLQZPR47KT-Y	RF CHOKE COIL	[M]
L101	ELESNR68MA	CHOKE COIL	[M]
L102	ELESNR68MA	CHOKE COIL	[M]
L103	ELEXTR47MA9	CHOKE COIL	[M]
L401	RLL500050T-Y	RF CHOKE COIL	[M]
L501	RLL500050T-Y	RF CHOKE COIL	[M]
L601	RLL500050T-Y	RF CHOKE COIL	[M]
L620	RLQZP1R0KT-Y	AXIAL COIL	[M]GN
L804	RLQZB470KT-D	RF CHOKE	[M]
L1301	RL08B003-K	BIAS OSC COIL	[M]
L1303	RLQA470JT1-Y	COIL	[M]
T1	RTP1M3B014-X	POWER TRANSFORMER	[M]GN ⚠
T1	RTP1M3C017	TRANSFORMER	[M]GT ⚠
T2	RTP1I3C001-V	BABY TRANSFORMER	[M]GT ⚠
T2	RTP1I3E001-V	TRANSFORMER	[M]GN ⚠
		COMPONENT COMBINATION	
Z1	ERZV10V511CS	ZENER	[M]
Z101	RLA2Z006M-T	ANT COIL BLOCK	[M]
Z102	RLI2Z006M-T	AM IFT	[M]
Z801	XAMR141	LAMP	[M]
Z802	XAMR141	LAMP	[M]
Z803	RCDRPM6937H4	REMOTE SENSOR	[M]
Z971	EXBF7L355SYV	RADA RESISTOR	[M]
		CERAMIC FILTERS	
CF201	RLFFETWN02DD	CERAMIC FILTER	[M]
CF202	RLFFETWN02DD	CERAMIC FILTER	[M]
		RELAY	
RL1	RSY0040M-0	RELAY	[M]
		OSCILLATORS	

Ref. No.	Part No.	Part Name & Description	Remarks
X102	RLFDFT13DD	CERAMIC FILTER	[M]
X103	RSXD7M20C01	CRYSTAL OSCILLATOR	[M]
X701	RSXZ16M9M01T	CERAMIC OSCILLATOR	[M]
X801	RSXZ4M19D01T	CERAMIC OSCILLATOR	[M]
X802	RSXD32K0C01	CRYSTAL OSCILLATOR	[M]
		FUSES	
F1	XBA1C12NBAL	FUSE	[M]GT ⚠
F1	XBA2C06TB0	FUSE	[M]GN ⚠
		FUSE CABLES	
FH1	EYF52BC	FUSE HOLDER	[M]
FH2	EYF52BC	FUSE HOLDER	[M]
		FUSE PROTECTOR	
FP601	RSFMB20KT-L	PROTECTOR	[M] ⚠
		LCD	
LCD801	RSL5222-L	LCD	[M]
		JACKS	
JK1	SJS9236-1	JK AC INLET	[M] ⚠
JK101	RJH5404	JK TUNER TERMINAL	[M]
JK601	RJH2206	JK RCA PIN	[M]
JK602	RJR0054E-J	JK SPEAKER TERMINAL	[M]
JK603	RJJ39T01	JK MIC	[M]
JK604	RJH2208	JK RCA	[M]
		TRIMMER	
CW802	REX0886Y	7P (VOL-CONTR)	[M]
		WIRES	
W802	RWJ4202110KK	2P (LAMP OTHER)	[M]
W803	RWJ4202110KK	2P (LAMP OTHER)	[M]
W804	REX0875	2P (CONTR-MOTOR)	[M]
W1981	RWJ0102050KR	MAIN-MECHA MOTOR WIR	[M]
PW800	RWJ1103195CX	3P (CONT-OPR)	[M]
PW802	RWJ1106120CC	6P (CONTR-SENSOR)	[M]
PW803	RWJ1104260XX	WIRE	[M]
PW804	RWJ1104300CC	4P (CD OPER-TIMER)	[M]
PW901	REX0958	WIRE	[M]
PW902	REX0957	WIRE	[M]
PW1301	RWJ8209210QX	WIRE	[M]
PW1303	RWJ8208240CX	WIRE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
		RESISTORS	
R1	ERDS2TJ104T	100K 1/4W	[M]
R2	ERDS2TJ104T	100K 1/4W	[M]
R2	ERDS2TJ332T	3.3K 1/4W	[M]
R3	ERDS2TJ103T	10K 1/4W	[M]
R3	ERDS2TJ221T	220 1/4W	[M]
R4	ERDS2TJ104T	100K 1/4W	[M]
R4	ERDS2TJ2R2T	2.2 1/4W	[M]
R5	ERDS2TJ2R2T	2.2 1/4W	[M]
R5	ERDS2TJ564T	560K 1/4W	[M]
R6	ERDS2TJ391T	390 1/4W	[M]
R7	ERDS2TJ272T	2.7K 1/4W	[M]
R8	ERDS2TJ684T	680K 1/4W	[M]
R9	ERDS2TJ391T	390 1/4W	[M]
R10	ERDS2TJ391T	390 1/4W	[M]
R11	ERDS2TJ684T	680K 1/4W	[M]
R102	ERDS2TJ472T	4.7K 1/4W	[M]
R103	ERDS2TJ271T	270 1/4W	[M]
R104	ERDS2TJ102T	1K 1/4W	[M]
R105	ERDS2TJ471T	470 1/4W	[M]
R106	ERDS2TJ474T	470K 1/4W	[M]
R107	ERDS2TJ331T	330 1/4W	[M]
R110	ERDS2TJ562T	5.6K 1/4W	[M]
R111	ERDS2TJ391T	390 1/4W	[M]
R112	ERDS2TJ104T	100K 1/4W	[M]
R113	ERDS2TJ103T	10K 1/4W	[M]
R114	ERDS2TJ562T	5.6K 1/4W	[M]
R115	ERDS2TJ561T	560 1/4W	[M]
R116	ERDS2TJ102T	1K 1/4W	[M]
R117	ERDS2TJ683T	68K 1/4W	[M]
R118	ERDS2TJ472T	4.7K 1/4W	[M]
R119	ERDS2TJ682T	6.8K 1/4W	[M]
R120	ERDS2TJ473T	47K 1/4W	[M]
R121	ERDS2TJ223T	22K 1/4W	[M]
R122	ERDS2TJ272T	2.7K 1/4W	[M]
R123	ERDS2TJ683T	68K 1/4W	[M]
R124	ERDS2TJ271T	270 1/4W	[M]
R125	ERDS2TJ471T	470 1/4W	[M]
R126	ERDS2TJ152T	1.5K 1/4W	[M]
R127	ERDS2TJ471T	470 1/4W	[M]
R128	ERDS2TJ820T	82 1/4W	[M]
R129	ERDS2TJ273T	27K 1/4W	[M]
R130	ERDS2TJ103T	10K 1/4W	[M]
R131	ERDS2TJ680T	68 1/4W	[M]
R132	ERDS2TJ103T	10K 1/4W	[M]
R133	ERDS2TJ102T	1K 1/4W	[M]
R134	ERDS2TJ471T	470 1/4W	[M]
R135	ERDS2TJ102T	1K 1/4W	[M]
R136	ERDS2TJ102T	1K 1/4W	[M]
R137	ERDS2TJ102T	1K 1/4W	[M]
R138	ERDS2TJ332T	3.3K 1/4W	[M]
R141	ERDS2TJ102T	1K 1/4W	[M]
R142	ERDS2TJ102T	1K 1/4W	[M]
R143	ERDS2TJ223T	22K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R145	ERDS2TJ104T	100K 1/4W	[M]
R146	ERDS2TJ104T	100K 1/4W	[M]
R401	ERDS2TJ183T	18K 1/4W	[M]
R404	ERDS2TJ562T	5.6K 1/4W	[M]
R405	ERDS2TJ183T	18K 1/4W	[M]
R408	ERDS2TJ333T	33K 1/4W	[M]
R409	ERDS2TJ153T	15K 1/4W	[M]
R410	ERDS2TJ273T	27K 1/4W	[M]
R411	ERDS2TJ392T	3.9K 1/4W	[M]
R414	ERDS2TJ472T	4.7K 1/4W	[M]
R415	ERDS2TJ223T	22K 1/4W	[M]
R416	ERDS2TJ104T	100K 1/4W	[M]
R417	ERDS2TJ472T	4.7K 1/4W	[M]
R418	ERDS2TJ473T	47K 1/4W	[M]
R423	ERDS2TJ153T	15K 1/4W	[M]
R425	ERDS2TJ562T	5.6K 1/4W	[M]
R426	ERDS2TJ820T	82 1/4W	[M]
R429	ERDS2TJ2R2T	2.2 1/4W	[M]
R430	ERDS2TJ2R2T	2.2 1/4W	[M]
R431	ERX1SJR82E	82 1W	[M]GT
R432	ERX1SJR82E	82 1W	[M]GT
R433	ERDS2TJ100T	10 1/4W	[M]
R434	ERDS2TJ1R2T	1.2 1/4W	[M]
R435	ERDS2TJ1R0T	1 1/4W	[M]
R438	ERDS2TJ103T	10K 1/4W	[M]
R439	ERDS2TJ272T	2.7K 1/4W	[M]
R444	ERDS2TJ822T	8.2K 1/4W	[M]
R501	ERDS2TJ183T	18K 1/4W	[M]
R504	ERDS2TJ562T	5.6K 1/4W	[M]
R505	ERDS2TJ183T	18K 1/4W	[M]
R508	ERDS2TJ333T	33K 1/4W	[M]
R509	ERDS2TJ153T	15K 1/4W	[M]
R510	ERDS2TJ273T	27K 1/4W	[M]
R511	ERDS2TJ392T	3.9K 1/4W	[M]
R514	ERDS2TJ472T	4.7K 1/4W	[M]
R515	ERDS2TJ223T	22K 1/4W	[M]
R516	ERDS2TJ104T	100K 1/4W	[M]
R517	ERDS2TJ472T	4.7K 1/4W	[M]
R518	ERDS2TJ473T	47K 1/4W	[M]
R519	ERDS2TJ153T	15K 1/4W	[M]
R521	ERDS2TJ472T	4.7K 1/4W	[M]
R522	ERDS2TJ272T	2.7K 1/4W	[M]
R523	ERDS2TJ153T	15K 1/4W	[M]
R525	ERDS2TJ562T	5.6K 1/4W	[M]
R526	ERDS2TJ820T	82 1/4W	[M]
R528	ERDS2TJ104T	100K 1/4W	[M]
R529	ERDS2TJ2R2T	2.2 1/4W	[M]
R530	ERDS2TJ2R2T	2.2 1/4W	[M]
R531	ERX1SJR82E	82 1W	[M]GT
R532	ERX1SJR82E	82 1W	[M]GT
R533	ERDS2TJ100T	10 1/4W	[M]
R534	ERDS2TJ1R2T	1.2 1/4W	[M]
R535	ERDS2TJ1R0T	1 1/4W	[M]
R538	ERDS2TJ103T	10K 1/4W	[M]
R539	ERDS2TJ272T	2.7K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R544	ERDS2TJ822T	8.2K 1/4W	[M]
R606	ERDS2TJ472T	4.7K 1/4W	[M]
R607	ERDS2TJ223T	22K 1/4W	[M]
R608	ERDS2TJ223T	22K 1/4W	[M]
R611	ERDS2TJ472T	4.7K 1/4W	[M]
R612	ERDS2TJ101T	100 1/4W	[M]
R613	ERDS2TJ681T	680 1/4W	[M]
R614	ERDS2TJ104T	100K 1/4W	[M]
R615	ERDS2TJ334T	330K 1/4W	[M]
R616	ERDS2TJ334T	330K 1/4W	[M]
R617	ERDS2TJ330T	33 1/4W	[M]
R618	ERDS2TJ330T	33 1/4W	[M]
R619	ERDS2TJ221T	220 1/4W	[M]
R621	ERDS2TJ822T	8.2K 1/4W	[M]
R622	ERDS2TJ223T	22K 1/4W	[M]
R623	ERDS2TJ103T	10K 1/4W	[M]
R624	ERDS2TJ102T	1K 1/4W	[M]
R625	ERDS2TJ472T	4.7K 1/4W	[M]
R626	ERDS2TJ122T	1.2K 1/4W	[M]
R627	ERDS2TJ331T	330 1/4W	[M]
R628	ERDS2TJ103T	10K 1/4W	[M]
R629	ERDS2TJ331T	330 1/4W	[M]
R630	ERDS2TJ681T	680 1/4W	[M]
R631	ERDS2TJ103T	10K 1/4W	[M]
R632	ERDS2TJ1R2T	1.2 1/4W	[M]GN
R632	ERDS2TJ1R5T	1.5 1/4W	[M]GT
R633	ERDS2TJ1R2T	1.2 1/4W	[M]GN
R633	ERDS2TJ1R5T	1.5 1/4W	[M]GT
R634	ERDS2TJ1R2T	1.2 1/4W	[M]GN
R634	ERDS2TJ1R5T	1.5 1/4W	[M]GT
R635	ERDS2TJ222T	2.2K 1/4W	[M]
R636	ERDS2TJ222T	2.2K 1/4W	[M]
R637	ERDS2TJ102T	1K 1/4W	[M]
R638	ERDS2TJ102T	1K 1/4W	[M]
R640	ERDS2TJ223T	22K 1/4W	[M]
R641	ERDS2TJ101T	100 1/4W	[M]
R642	ERDS2TJ332T	3.3K 1/4W	[M]
R643	ERDS2TJ103T	10K 1/4W	[M]
R644	ERD2FCVJ8R2T	8.2 1/4W	[M]
R645	ERDS1FVJ4R7T	4.7 1/2W	[M] ⚠
R646	ERDS1FVJ4R7T	4.7 1/2W	[M] ⚠
R647	ERDS1FVJ4R7T	4.7 1/2W	[M] ⚠
R648	ERDS2TJ1R2T	1.2 1/4W	[M]
R649	ERD2FCVJ8R2T	8.2 1/4W	[M]
R650	ERDS2TJ102T	1K 1/4W	[M]
R651	ERDS2TJ101T	100 1/4W	[M]
R657	ERDS2TJ122T	1.2K 1/4W	[M]
R658	ERDS2TJ333T	33K 1/4W	[M]
R659	ERDS2TJ472T	4.7K 1/4W	[M]
R669	ERDS2TJ333T	33K 1/4W	[M]
R672	ERDS2TJ103T	10K 1/4W	[M]
R673	ERDS2TJ103T	10K 1/4W	[M]
R675	ERDS2TJ103T	10K 1/4W	[M]
R679	ERDS2TJ223T	22K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R680	ERDS2TJ104T	100K 1/4W	[M]
R682	ERDS2TJ472T	4.7K 1/4W	[M]
R695	ERDS2TJ222T	2.2K 1/4W	[M]
R696	ERDS2TJ103T	10K 1/4W	[M]
R697	ERDS2TJ824T	820K 1/4W	[M]
R698	ERDS2TJ152T	1.5K 1/4W	[M]
R699	ERDS2TJ102T	1K 1/4W	[M]
R701	ERJ6GEYJ4R7A	4.7 1/10W	[M]
R702	ERJ6GEYJ822A	8.2K 1/10W	[M]
R704	ERJ6GEYJ102A	1K 1/10W	[M]
R705	ERJ6GEYJ124A	120K 1/10W	[M]
R706	ERJ6GEYJ102A	1K 1/10W	[M]
R707	ERJ6GEYJ474A	470K 1/10W	[M]
R708	ERJ6GEYJ154A	150K 1/10W	[M]
R709	ERJ6GEYJ473A	47K 1/10W	[M]
R710	ERJ6GEYJ103A	10K 1/10W	[M]
R711	ERJ6GEYJ154A	150K 1/10W	[M]
R712	ERJ6GEYJ221A	220 1/10W	[M]
R715	ERJ6GEYJ122A	1.2K 1/10W	[M]
R717	ERJ6GEYJ102A	1K 1/10W	[M]
R718	ERJ6GEYJ102A	1K 1/10W	[M]
R719	ERJ6GEYJ102A	1K 1/10W	[M]
R720	ERJ6GEYJ102A	1K 1/10W	[M]
R721	ERJ6GEYJ101A	100 1/10W	[M]
R723	ERJ6GEYJ272A	2.7K 1/10W	[M]
R724	ERJ6GEYJ333A	33K 1/10W	[M]
R725	ERJ6GEYJ122A	1.2K 1/10W	[M]
R727	ERJ6GEYJ682A	6.8K 1/10W	[M]
R728	ERJ6GEYJ682A	6.8K 1/10W	[M]
R729	ERJ6GEYJ562A	5.6K 1/10W	[M]
R731	ERJ6GEYJ123A	12K 1/10W	[M]
R734	ERJ6GEYJ101A	100 1/10W	[M]
R735	ERJ6GEYJ101A	100 1/10W	[M]
R736	ERJ6GEYJ101A	100 1/10W	[M]
R738	ERJ6GEYJ223A	22K 1/10W	[M]
R741	ERJ6GEYJ562A	5.6K 1/10W	[M]
R742	ERJ6GEYJ562A	5.6K 1/10W	[M]
R743	ERJ6GEYJ562A	5.6K 1/10W	[M]
R744	ERJ6GEYJ104A	100K 1/10W	[M]
R745	ERJ6GEYJ155A	1.5M 1/10W	[M]
R748	ERJ6GEYJ272A	2.7K 1/10W	[M]
R749	ERJ6GEYJ682A	6.8K 1/10W	[M]
R752	ERJ8GEYJ220A	22 1/8W	[M]
R770	ERJ6GEYJ224A	220K 1/10W	[M]
R801	ERDS2TJ102T	1K 1/4W	[M]
R802	ERDS2TJ271T	270 1/4W	[M]
R803	ERDS2TJ271T	270 1/4W	[M]
R804	ERDS2TJ101T	100 1/4W	[M]
R805	ERDS2TJR47T	0.JR 1/4W	[M]
R806	ERDS2TJR47T	0.JR 1/4W	[M]
R807	ERDS2TJ3R3T	3.3 1/4W	[M]
R808	ERDS2TJ102T	1K 1/4W	[M]
R809	ERDS2TJ103T	10K 1/4W	[M]
R811	ERDS2TJ823T	82K 1/4W	[M]
R812	ERDS2TJ823T	82K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R813	ERDS2TJ823T	82K 1/4W	[M]
R814	ERDS2TJ222T	2.2K 1/4W	[M]
R817	ERDS2TJ104T	100K 1/4W	[M]
R818	ERDS2TJ153T	15K 1/4W	[M]
R819	ERDS2TJ472T	4.7K 1/4W	[M]
R820	ERDS2TJ472T	4.7K 1/4W	[M]
R821	ERDS2TJ472T	4.7K 1/4W	[M]
R822	ERDS2TJ472T	4.7K 1/4W	[M]
R823	ERDS2TJ472T	4.7K 1/4W	[M]
R824	ERDS2TJ472T	4.7K 1/4W	[M]
R825	ERDS2TJ102T	1K 1/4W	[M]
R826	ERDS2TJ103T	10K 1/4W	[M]
R827	ERDS2TJ472T	4.7K 1/4W	[M]
R828	ERDS2TJ472T	4.7K 1/4W	[M]
R829	ERDS2TJ472T	4.7K 1/4W	[M]
R830	ERDS2TJ102T	1K 1/4W	[M]
R831	ERDS2TJ102T	1K 1/4W	[M]
R832	ERD2FCVG220T	22 1/4W	[M]
R833	ERDS2TJ106T	10M 1/4W	[M]
R834	ERDS2TJ681T	680 1/4W	[M]
R835	ERDS2TJ334T	330K 1/4W	[M]
R836	ERDS2TJ472T	4.7K 1/4W	[M]
R837	ERDS2TJ472T	4.7K 1/4W	[M]
R838	ERDS2TJ473T	47K 1/4W	[M]
R839	ERDS2TJ473T	47K 1/4W	[M]
R840	ERDS2TG103T	10K 1/4W	[M]
R841	ERDS2TG103T	10K 1/4W	[M]
R842	ERDS2TJ122T	1.2K 1/4W	[M]
R843	ERDS2TJ182T	1.8K 1/4W	[M]
R844	ERDS2TJ222T	2.2K 1/4W	[M]
R845	ERDS2TJ272T	2.7K 1/4W	[M]
R846	ERDS2TJ472T	4.7K 1/4W	[M]
R847	ERDS2TJ682T	6.8K 1/4W	[M]
R848	ERDS2TJ103T	10K 1/4W	[M]
R849	ERDS2TJ223T	22K 1/4W	[M]
R850	ERDS2TJ683T	68K 1/4W	[M]
R851	ERDS2TJ102T	1K 1/4W	[M]
R852	ERDS2TJ102T	1K 1/4W	[M]
R853	ERDS2TJ102T	1K 1/4W	[M]
R854	ERDS2TJ122T	1.2K 1/4W	[M]
R855	ERDS2TJ182T	1.8K 1/4W	[M]
R856	ERDS2TJ222T	2.2K 1/4W	[M]
R857	ERDS2TJ272T	2.7K 1/4W	[M]
R858	ERDS2TJ472T	4.7K 1/4W	[M]
R859	ERDS2TJ682T	6.8K 1/4W	[M]
R860	ERDS2TJ103T	10K 1/4W	[M]
R861	ERDS2TJ223T	22K 1/4W	[M]
R862	ERDS2TJ683T	68K 1/4W	[M]
R863	ERDS2TJ473T	47K 1/4W	[M]
R864	ERDS2TJ102T	1K 1/4W	[M]
R865	ERDS2TJ102T	1K 1/4W	[M]
R866	ERDS2TJ103T	10K 1/4W	[M]
R867	ERDS2TJ152T	1.5K 1/4W	[M]
R868	ERDS2TJ105T	1M 1/4W	[M]
R869	ERDS2TJ122T	1.2K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R870	ERDS2TJ101T	100 1/4W	[M]
R871	ERDS2TJ103T	10K 1/4W	[M]
R873	ERDS2TJ103T	10K 1/4W	[M]
R874	ERDS2TJ223T	22K 1/4W	[M]
R875	ERDS2TJ103T	10K 1/4W	[M]GN
R876	ERDS2TJ103T	10K 1/4W	[M]GT
R878	ERDS2TJ223T	22K 1/4W	[M]
R879	ERDS2TJ104T	100K 1/4W	[M]
R880	ERDS2TJ102T	1K 1/4W	[M]
R881	ERDS2TJ102T	1K 1/4W	[M]
R882	ERDS2TJ103T	10K 1/4W	[M]
R883	ERDS2TJ103T	10K 1/4W	[M]
R884	ERDS2TJ222T	2.2K 1/4W	[M]
R885	ERDS2TJ222T	2.2K 1/4W	[M]
R886	ERDS2TJ222T	2.2K 1/4W	[M]
R887	ERDS2TJ222T	2.2K 1/4W	[M]
R888	ERDS2TJ222T	2.2K 1/4W	[M]
R889	ERDS2TJ222T	2.2K 1/4W	[M]
R890	ERDS2TJ223T	22K 1/4W	[M]
R891	ERDS2TJ103T	10K 1/4W	[M]
R892	ERDS2TJ561T	560 1/4W	[M]
R893	ERDS2TJ332T	3.3K 1/4W	[M]
R894	ERDS2TJ561T	560 1/4W	[M]
R895	ERDS2TJ223T	22K 1/4W	[M]
R896	ERDS2TJ103T	10K 1/4W	[M]
R897	ERDS2TJ561T	560 1/4W	[M]
R898	ERDS2TJ332T	3.3K 1/4W	[M]
R899	ERDS2TJ561T	560 1/4W	[M]
R972	ERDS2TJ821T	820 1/4W	[M]
R973	ERDS2TJ393T	39K 1/4W	[M]
R1101	ERDS2TJ474T	470K 1/4W	[M]
R1102	ERDS2TJ153T	15K 1/4W	[M]
R1103	ERDS2TJ560T	56 1/4W	[M]
R1104	ERDS2TJ681T	680 1/4W	[M]
R1105	ERDS2TJ103T	10K 1/4W	[M]
R1107	ERDS2TJ334T	330K 1/4W	[M]
R1109	ERDS2TJ273T	27K 1/4W	[M]
R1110	ERDS2TJ222T	2.2K 1/4W	[M]
R1111	ERDS2TJ392T	3.9K 1/4W	[M]
R1112	ERDS2TJ470T	47 1/4W	[M]
R1113	ERDS2TJ392T	3.9K 1/4W	[M]
R1114	ERDS2TJ472T	4.7K 1/4W	[M]
R1115	ERDS2TJ333T	33K 1/4W	[M]
R1116	ERDS2TJ152T	1.5K 1/4W	[M]
R1201	ERDS2TJ474T	470K 1/4W	[M]
R1202	ERDS2TJ153T	15K 1/4W	[M]
R1203	ERDS2TJ560T	56 1/4W	[M]
R1204	ERDS2TJ681T	680 1/4W	[M]
R1205	ERDS2TJ103T	10K 1/4W	[M]
R1207	ERDS2TJ334T	330K 1/4W	[M]
R1209	ERDS2TJ273T	27K 1/4W	[M]
R1210	ERDS2TJ222T	2.2K 1/4W	[M]
R1211	ERDS2TJ392T	3.9K 1/4W	[M]
R1212	ERDS2TJ470T	47 1/4W	[M]
R1213	ERDS2TJ392T	3.9K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R1214	ERDS2TJ472T	4.7K 1/4W	[M]
R1215	ERDS2TJ333T	33K 1/4W	[M]
R1216	ERDS2TJ152T	1.5K 1/4W	[M]
R1301	ERDS2TJ474T	470K 1/4W	[M]
R1302	ERDS2TJ104T	100K 1/4W	[M]
R1303	ERDS2TJ103T	10K 1/4W	[M]
R1304	ERDS2TJ152T	1.5K 1/4W	[M]
R1305	ERDS2TJ152T	1.5K 1/4W	[M]
R1307	ERDS2TJ153T	15K 1/4W	[M]
R1308	ERDS2TJ153T	15K 1/4W	[M]
R1309	ERDS2TJ331T	330 1/4W	[M]
R1310	ERDS2TJ103T	10K 1/4W	[M]
R1311	ERD2FCVJ4R7T	4.7 1/4W	[M]
R1312	ERDS2TJ752T	7.5K 1/4W	[M]
R1313	ERDS2TJ472T	4.7K 1/4W	[M]
R1314	ERDS2TJ153T	15K 1/4W	[M]
R1315	ERDS2TJ472T	4.7K 1/4W	[M]
R1316	ERDS2TJ470T	47 1/4W	[M]
R1317	ERDS2TJ103T	10K 1/4W	[M]
R1318	ERDS2TJ682T	6.8K 1/4W	[M]
R1319	ERDS2TJ823T	82K 1/4W	[M]
R1320	ERDS2TJ103T	10K 1/4W	[M]
R1321	ERDS2TJ103T	10K 1/4W	[M]
R1322	ERDS2TJ102T	1K 1/4W	[M]
R1323	ERDS2TJ393T	39K 1/4W	[M]
R1324	ERDS2TJ822T	8.2K 1/4W	[M]
R1325	ERDS2TJ562T	5.6K 1/4W	[M]
R1326	ERDS2TJ682T	6.8K 1/4W	[M]
R1327	ERDS2TJ102T	1K 1/4W	[M]
R1328	ERDS2TJ101T	100 1/4W	[M]
R1329	ERDS2TJ335T	3.3M 1/4W	[M]
R1330	ERDS2TJ823T	82K 1/4W	[M]
R1331	ERDS2TJ104T	100K 1/4W	[M]
R1332	ERDS2TJ333T	33K 1/4W	[M]
R1333	ERDS2TJ472T	4.7K 1/4W	[M]
R1334	ERDS2TJ393T	39K 1/4W	[M]
R1335	ERDS2TJ682T	6.8K 1/4W	[M]
R1336	ERDS2TJ681T	680 1/4W	[M]
R1337	ERDS2TJ273T	27K 1/4W	[M]
R1338	ERDS2TJ332T	3.3K 1/4W	[M]
R1339	ERDS2TJ473T	47K 1/4W	[M]
R1340	ERDS2TJ223T	22K 1/4W	[M]
R1342	ERDS2TJ123T	12K 1/4W	[M]
R1352	ERDS2TJ473T	47K 1/4W	[M]
R1354	ERDS2TJ332T	3.3K 1/4W	[M]
R1355	ERDS2TJ222T	2.2K 1/4W	[M]
R1391	ERDS2TJ223T	22K 1/4W	[M]
R1395	ERDS2TJ103T	10K 1/4W	[M]
R1396	ERDS2TJ102T	1K 1/4W	[M]
R1397	ERDS2TJ102T	1K 1/4W	[M]
R1399	ERDS2TJ102T	1K 1/4W	[M]
		CAPACITORS	
C1	ECBT1H5R6KC5	5.6P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2	RCBS1H102KBY	1000P 50V	[M]
C3	ECBT1H2R2KC5	2.2P 50V	[M]
C4	ECBT1H181KB5	180P 50V	[M]
C5	ECBT1H5R6KC5	5.6P 50V	[M]
C5	ECKR1H103ZF5	0.01 50V	[M]
C6	ECA1CM102B	1000 16V	[M]
C6	ECBT1H3R3KC5	3.3P 50V	[M]
C7	ECBT1H4R7KC5	4.7P 50V	[M]
C8	ECBT1H3R3KC5	3.3P 50V	[M]
C9	ECBT1H2R2KC5	2.2P 50V	[M]
C10	ECBT1H180JC5	18P 50V	[M]
C11	RCBS1H102KBY	1000P 50V	[M]
C101	ECBT1C103NS5	0.01 16V	[M]
C102	ECEA1CKA100B	10 16V	[M]
C103	ECBT1C103NS5	0.01 16V	[M]
C104	ECBT1H102KB5	1000P 50V	[M]
C106	ECBT1C103NS5	0.01 16V	[M]
C107	ECBT1H473ZF5	0.047 50V	[M]
C108	ECBT1H8R2KC5	8.2P 50V	[M]
C109	ECBT1H102KB5	1000P 50V	[M]
C110	ECBT1C103NS5	0.01 16V	[M]
C111	ECEA1EKA4R7B	4.7 25V	[M]
C112	ECBT1C103NS5	0.01 16V	[M]
C113	ECBT1H102KB5	1000P 50V	[M]
C114	ECEA1HKA3R3B	3.3 50V	[M]
C115	ECEA1EKA4R7B	4.7 25V	[M]
C116	ECFR1C333KR	0.033 16V	[M]
C117	ECFR1C183KR	0.018 16V	[M]
C118	ECFR1C183KR	0.018 16V	[M]
C119	ECQP1561JZT	560P 100V	[M]
C120	ECEA1CKA100B	10 16V	[M]
C121	ECEA1HKAR47B	0.47 50V	[M]
C122	ECEA1HKA010B	1 50V	[M]
C123	ECEA1HKA010B	1 50V	[M]
C124	ECBT1H101KB5	100P 50V	[M]
C125	ECEA1EKA220B	22 25V	[M]
C126	ECBT1H473ZF5	0.047 50V	[M]
C127	ECEA1CKA220B	22 16V	[M]
C129	ECEA0JKA101B	100 6.3V	[M]
C130	ECEA0JKA101B	100 6.3V	[M]
C131	ECBT1H101KB5	100P 50V	[M]
C132	ECBT1H102KB5	1000P 50V	[M]
C133	ECBT1H150JC5	15P 50V	[M]
C134	ECBT1H180JC5	18P 50V	[M]
C136	ECBT1H102KB5	1000P 50V	[M]
C137	ECFR1C472KR	4700P 16V	[M]
C138	ECBT1C103KS5	0.01 16V	[M]
C139	ECFR1C472KR	4700P 16V	[M]
C141	ECEA1HKA010B	1 50V	[M]
C142	ECEA1HKA010B	1 50V	[M]
C143	ECBT1C472KR5	4700P 16V	[M]
C144	ECBT1C472KR5	4700P 16V	[M]
C147	ECBT1H102KB5	1000P 50V	[M]
C148	ECBT1C103NS5	0.01 16V	[M]
C149	ECBT1H104ZF5	0.1 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C401	ECBT1H101KB5	100P 50V	[M]GN
C402	ECBT1H101KB5	100P 50V	[M]GN
C404	ECA1EAK100XB	10 25V	[M]
C406	ECBT1H221KB5	220P 50V	[M]
C407	ECEA1EKA470B	47 25V	[M]
C408	ECBT1H221KB5	220P 50V	[M]
C409	ECFR1C104KR	0.1 16V	[M]
C410	ECFR1C104KR	0.1 16V	[M]
C411	ECFR1C223MR	0.022 16V	[M]
C412	ECBT1H101KB5	100P 50V	[M]
C413	ECQV1H154JZ3	0.15 50V	[M]
C414	ECQV1H154JZ3	0.15 50V	[M]
C415	ECBT1H471KB5	470P 50V	[M]
C416	ECQV1H154JZ3	0.15 50V	[M]
C423	ECA1EAK100XB	10 25V	[M]
C424	ECBT1H471KB5	470P 50V	[M]
C425	ECA1CPXL471E	470 16V	[M]
C427	ECEA1AKA221Q	220 10V	[M]
C428	ECBT1H473ZF5	0.047 50V	[M]GN
C429	ECBT1H473ZF5	0.047 50V	[M]GN
C430	ECA1HAK2R2XB	2.2 50V	[M]
C431	ECBT1H471KB5	470P 50V	[M]
C432	ECFR1E104MR	0.1 25V	[M]
C433	ECFR1E104MR	0.1 25V	[M]
C435	ECBT1H473ZF5	0.047 50V	[M]GN
C437	ECEA1CKA101B	100 16V	[M]
C438	ECEA1CKA101B	100 16V	[M]
C439	ECQV1H224JZ3	0.22 50V	[M]
C440	ECBT1C182KR5	1800P 16V	[M]
C444	ECFR1C183KR	0.018 16V	[M]
C501	ECBT1H101KB5	100P 50V	[M]GN
C502	ECBT1H101KB5	100P 50V	[M]GN
C504	ECA1EAK100XB	10 25V	[M]
C506	ECBT1H221KB5	220P 50V	[M]
C508	ECBT1H221KB5	220P 50V	[M]
C509	ECFR1C104KR	0.1 16V	[M]
C510	ECFR1C104KR	0.1 16V	[M]
C511	ECFR1C223MR	0.022 16V	[M]
C512	ECBT1H101KB5	100P 50V	[M]
C513	ECQV1H154JZ3	0.15 50V	[M]
C514	ECQV1H154JZ3	0.15 50V	[M]
C515	ECBT1H471KB5	470P 50V	[M]
C516	ECQV1H154JZ3	0.15 50V	[M]
C518	ECQV1H154JZ3	0.15 50V	[M]
C519	ECFR1C473MR	0.047 16V	[M]
C520	ECBT1H471KB5	470P 50V	[M]
C521	ECA1EAK100XB	10 25V	[M]
C522	ECQV1H334JZ3	0.33 50V	[M]
C523	ECA1EAK100XB	10 25V	[M]
C524	ECBT1H471KB5	470P 50V	[M]
C525	ECA1CPXL471E	470 16V	[M]
C527	ECEA1AKA221Q	220 10V	[M]
C528	ECBT1H473ZF5	0.047 50V	[M]GN
C529	ECBT1H473ZF5	0.047 50V	[M]GN
C530	ECA1HAK2R2XB	2.2 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C531	ECBT1H471KB5	470P 50V	[M]
C532	ECFR1E104MR	0.1 25V	[M]
C533	ECFR1E104MR	0.1 25V	[M]
C535	ECBT1H473ZF5	0.047 50V	[M]GN
C537	ECEA1CKA101B	100 16V	[M]
C538	ECEA1CKA101B	100 16V	[M]
C539	ECQV1H224JZ3	0.22 50V	[M]
C540	ECBT1C182KR5	1800P 16V	[M]
C544	ECFR1C183KR	0.018 16V	[M]
C605	ECA1EAK100XB	10 25V	[M]
C606	ECA1EAK100XB	10 25V	[M]
C607	ECFR1C473MR	0.047 16V	[M]
C608	ECEA1HKA010B	1 50V	[M]
C609	ECEA1HKA010B	1 50V	[M]
C610	ECEA1HKA010B	1 50V	[M]
C611	ECA1CM101B	100 16V	[M]
C613	ECA1CM471B	71 16V	[M]
C615	ECEA1AKA220B	22 10V	[M]
C616	ECA1EM331B	330 25V	[M]
C617	ECEA1AKA220B	22 10V	[M]
C618	ECA1EM331B	330 25V	[M]
C620	ECEA1CKA101B	100 16V	[M]
C621	ECEA1CKA330B	33 16V	[M]
C622	ECEA1HKA010B	1 50V	[M]
C624	ECA1EAK100XB	10 25V	[M]
C625	ECA1EAK100XB	10 25V	[M]
C626	ECEA1EKA470B	47 25V	[M]
C627	ECBT1C103MS5	0.01 16V	[M]
C628	ECA1EAM682XE	6800 25V	[M] ⚠
C630	ECEA1HKA010B	1 50V	[M]
C631	ECA1HM221B	220 50V	[M]
C632	ECA1HM221B	220 50V	[M]
C633	ECBT1C103MS5	0.01 16V	[M]
C634	ECEA1AKA221Q	220 10V	[M]
C635	ECBT1H102KB5	1000P 50V	[M]
C636	ECBT1H330J5	33P 50V	[M]
C637	ECBT1H102KB5	1000P 50V	[M]
C638	ECBT1H102KB5	1000P 50V	[M]
C642	ECBT1H101KB5	100P 50V	[M]
C643	ECBT1H101KB5	100P 50V	[M]
C644	ECBT1H471KB5	470P 50V	[M]
C645	ECA1AM471B	470 10V	[M]
C646	ECBT1H102KB5	1000P 50V	[M]
C647	ECBT1H221KB5	220P 50V	[M]
C650	ECKR1H103ZF5	0.01 50V	[M]
C696	ECBT1C103MS5	0.01 16V	[M]
C697	ECA1CM101B	100 16V	[M]
C698	ECBT1H102KB5	1000P 50V	[M]
C701	ECEA0JKA330I	33 6.3V	[M]
C702	ECUZ1E104MBN	0.1 25V	[M]
C703	ECEA0JKA101I	100 6.3V	[M]
C704	ECUZ1E104MBN	0.1 25V	[M]
C706	ECUZ1H272KBN	2700P 50V	[M]
C707	ECUZ1E273KBN	0.027 25V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C710	ECUV1H151KCN	150P 50V	[M]
C711	ECUZ1E104ZFN	0.1 25V	[M]
C712	ECUZ1E104ZFN	0.1 25V	[M]
C713	ECUZ1E104MBN	0.1 25V	[M]
C714	ECEA0JKA101I	100 6.3V	[M]
C715	ECUZ1H182KBN	1800P 50V	[M]
C716	ECUZ1H821KBN	820P 50V	[M]
C717	ECUZ1E104ZFN	0.1 25V	[M]
C718	ECUZ1C224KBN	0.22 16V	[M]
C721	ECUZ1H150JCN	15P 50V	[M]
C722	ECUZ1H150JCN	15P 50V	[M]
C723	ECEA1AKA221I	220 10V	[M]
C724	ECUZ1E104MBN	0.1 25V	[M]
C725	ECUZ1H102KBN	1000P 50V	[M]
C726	ECUZ1H102KBN	1000P 50V	[M]
C727	ECA1HAK010XI	1 50V	[M]
C728	ECA1HAK010XI	1 50V	[M]
C730	ECUZ1E104ZFN	0.1 25V	[M]
C731	ECEA0JKA221I	220 6.3V	[M]
C732	ECEA0JKA221I	220 6.3V	[M]
C733	ECUZ1E104MBN	0.1 25V	[M]
C734	ECEA1AKA221I	220 10V	[M]
C735	ECUZ1E104ZFN	0.1 25V	[M]
C736	ECUZ1E104ZFN	0.1 25V	[M]
C737	ECUZ1E104ZFN	0.1 25V	[M]
C738	ECUZ1E104MBN	0.1 25V	[M]
C739	ECUZ1H103KBN	0.01 50V	[M]
C742	ECUZ1E273KBN	0.027 25V	[M]
C743	ECUZ1E104ZFN	0.1 25V	[M]
C744	ECUZ1E123KBN	0.012 25V	[M]
C745	ECUZ1C473KBN	0.047 16V	[M]
C747	ECUV1H221KBN	220P 50V	[M]
C749	ECUZ1H222KBN	2200P 50V	[M]
C750	ECUZ1E104MBN	0.1 25V	[M]
C751	ECUZ1E104MBN	0.1 25V	[M]
C752	ECUZ1H102KBN	1000P 50V	[M]
C753	ECUZ1H471KBM	470P 50V	[M]
C754	ECUZ1H471KBN	470P 50V	[M]
C761	ECUZ1H471KBN	470P 50V	[M]
C762	ECUZ1H471KBN	470P 50V	[M]
C790	ECA1AKF820E	82 10V	[M]
C801	ECBT1H102KB5	1000P 50V	[M]
C806	ECA0JM102B	1000 6.3V	[M]
C809	ECEA0JKA470B	47 6.3V	[M]
C810	ECBT1H561KB5	560P 50V	[M]
C811	ECBT1H561KB5	560P 50V	[M]
C812	ECBT1H561KB5	560P 50V	[M]
C813	ECBT1H561KB5	560P 50V	[M]
C814	ECBT1H561KB5	560P 50V	[M]
C815	ECBT1H561KB5	560P 50V	[M]
C816	ECBT1H561KB5	560P 50V	[M]
C817	ECBT1H561KB5	560P 50V	[M]
C818	ECBT1H101KB5	100P 50V	[M]
C819	ECBT1C103MS5	0.01 16V	[M]
C820	ECBT1H180JC5	18P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C821	ECBT1H180JC5	18P 50V	[M]
C822	ECBT1H680J5	68P 50V	[M]
C823	ECBT1H680J5	68P 50V	[M]
C824	ECBT1H680J5	68P 50V	[M]
C825	ECBT1H680J5	68P 50V	[M]
C826	ECBT1H102KB5	1000P 50V	[M]
C827	ECBT1H102KB5	1000P 50V	[M]
C828	ECBT1H101KB5	100P 50V	[M]
C829	ECBT1H101KB5	100P 50V	[M]
C830	ECBT1H101KB5	100P 50V	[M]
C831	ECEA1HKA010B	1 50V	[M]
C832	ECEA1HKA010B	1 50V	[M]
C833	ECBT1C103MS5	0.01 16V	[M]
C836	ECA1AM331B	330 10V	[M]
C838	ECBT1H221KB5	220P 50V	[M]
C839	ECBT1H221KB5	220P 50V	[M]
C840	ECBT1H221KB5	220P 50V	[M]
C842	ECBT1C103MS5	0.01 16V	[M]
C843	ECEA1AKA470B	47 10V	[M]
C844	ECA1CM221B	220 16V	[M]
C899	ECEA0JKA470B	47 6.3V	[M]
C901	ECKR1H103ZF5	0.01 50V	[M]
C902	ECKR1H103ZF5	0.01 50V	[M]
C903	ECKR1H103ZF5	0.01 50V	[M]
C904	ECKR1H103ZF5	0.01 50V	[M]
C905	ECQE2104KF3	0.1 250V	[M]
C1102	ECBT1C152MR5	1500P 16V	[M]
C1103	ECEA0JKA470B	47 6.3V	[M]
C1104	ECBT1H331KB5	330P 50V	[M]
C1105	ECFR1C153KR	0.015 16V	[M]
C1106	ECEA1EKA4R7B	4.7 25V	[M]
C1107	ECEA1HKA010B	1 50V	[M]
C1108	ECEA0JKA470B	47 6.3V	[M]
C1111	ECEA1EKA4R7B	4.7 25V	[M]
C1112	ECBT1H102KB5	1000P 50V	[M]
C1113	ECBT1H102KB5	1000P 50V	[M]
C1114	ECBT1H102KB5	1000P 50V	[M]
C1115	ECBT1H101KB5	100P 50V	[M]
C1202	ECBT1C152MR5	1500P 16V	[M]
C1203	ECEA0JKA470B	47 6.3V	[M]
C1204	ECBT1H331KB5	330P 50V	[M]
C1205	ECFR1C153KR	0.015 16V	[M]
C1206	ECEA1EKA4R7B	4.7 25V	[M]
C1207	ECEA1HKA010B	1 50V	[M]
C1208	ECEA0JKA470B	47 6.3V	[M]
C1211	ECEA1EKA4R7B	4.7 25V	[M]
C1212	ECBT1H102KB5	1000P 50V	[M]
C1213	ECBT1H102KB5	1000P 50V	[M]
C1214	ECBT1H102KB5	1000P 50V	[M]
C1215	ECBT1H101KB5	100P 50V	[M]
C1301	ECEA1HN010SB	1 50V	[M]
C1303	ECBT1C103MS5	0.01 16V	[M]
C1305	ECQP1102JZT	1000P 100V	[M]
C1306	ECQP1472JZT	4700P 100V	[M]
C1307	ECEA1HKA010B	1 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C1308	ECA1CM101B	100 16V	[M]
C1309	ECQV1H473JZ3	0.047 50V	[M]
C1310	ECBT1H102KB5	1000P 50V	[M]
C1311	ECBT1H102KB5	1000P 50V	[M]
C1312	ECBT1C222MR5	2200P 16V	[M]
C1313	ECBT1C222MR5	2200P 16V	[M]
C1314	ECBT1C332MR5	3300P 16V	[M]
C1315	ECA1EAK100XB	10 25V	[M]
C1316	ECFR1C104KR	0.1 16V	[M]
C1317	ECBT1H470J5	47P 50V	[M]
C1318	ECEA1HKA3R3B	3.3 50V	[M]
C1319	ECEA1AKA221Q	220 10V	[M]
C1320	ECEA1AKA220B	22 10V	[M]
C1321	ECEA1AKA220B	22 10V	[M]
C1322	ECEA0JKA470B	47 6.3V	[M]
C1323	ECBT1C103MS5	0.01 16V	[M]
C1324	ECBT1C472MR5	4700P 16V	[M]
C1326	ECA1EAK100XB	10 25V	[M]
		CHIP JUMPER	
RJ701	ERJ6GEY0R00A	0 1/10W	[M]
RJ702	ERJ8GEY0R00A	0 1/8W	[M]
RJ703	ERJ8GEY0R00A	0 1/8W	[M]
RJ704	ERJ8GEY0R00A	0 1/8W	[M]
RJ705	ERJ8GEY0R00A	0 1/8W	[M]
RJ706	ERJ8GEY0R00A	0 1/8W	[M]
RJ707	ERJ8GEY0R00A	0 1/8W	[M]
RJ708	ERJ8GEY0R00A	0 1/8W	[M]
RJ709	ERJ8GEY0R00A	0 1/8W	[M]
RJ710	ERJ8GEY0R00A	0 1/8W	[M]
RJ721	ERJ6GEY0R00A	0 1/10W	[M]
RJ722	ERJ6GEY0R00A	0 1/10W	[M]
RJ723	ERJ6GEY0R00A	0 1/10W	[M]
RJ724	ERJ6GEY0R00A	0 1/10W	[M]
RJ725	ERJ6GEY0R00A	0 1/10W	[M]
RJ726	ERJ6GEY0R00A	0 1/10W	[M]
RJ727	ERJ6GEY0R00A	0 1/10W	[M]
RJ728	ERJ6GEY0R00A	0 1/10W	[M]
RJ750	ERJ6GEY0R00A	0 1/10W	[M]
		TEST JUMPER	
TJ701	EYF8CU	TEST JUMPER	[M]

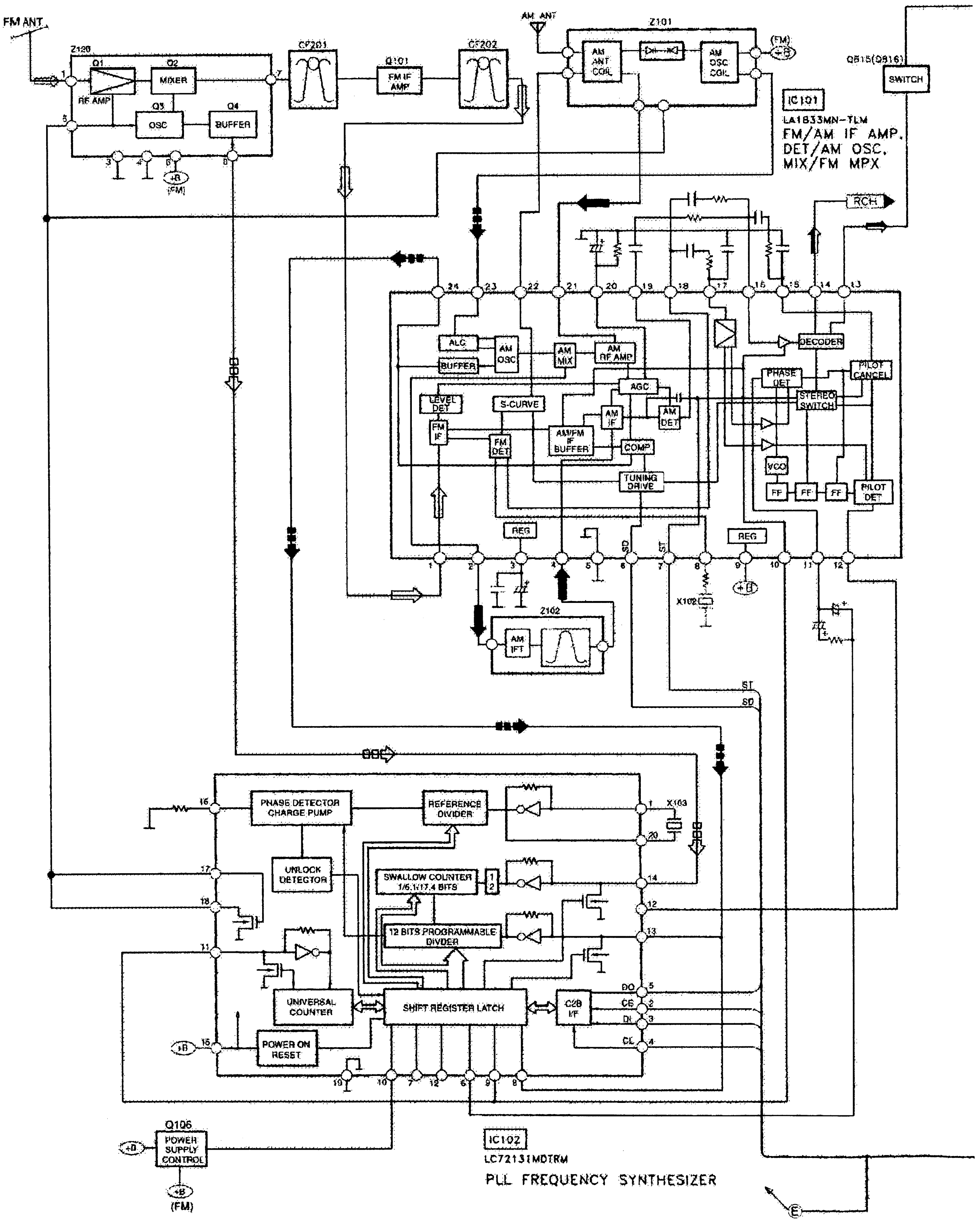
15.5. Packing Materials & Accessories Parts List

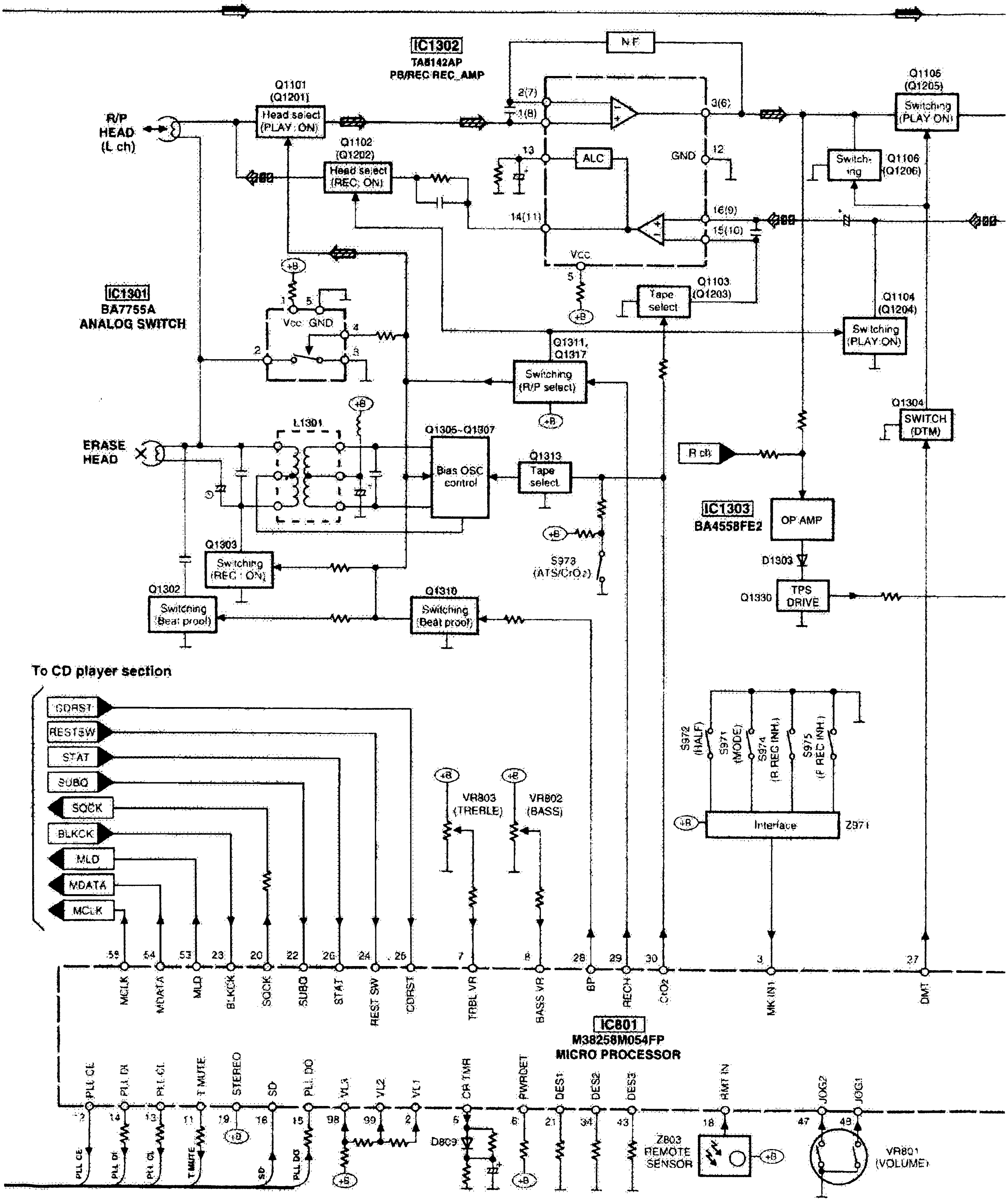
Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPG4708	PACKING CASE	[M]GN
P1	RPG4709	PACKING CASE	[M]GT
P2	RPN1259	POLYFOAM	[M]
P3	RPH0192	MIRAMAT BAG	[M]
		ACCESSORIES	
A1	EUR644862	REMOTE CONTROL	[M]
A1-1	UR64EC1822R	R/C BATTERY COVER	[M]
A2	RJA0004	AC CORD (SF)	[M]GT ⚠
A2	RJA0035-X	AC CORD (SF)	[M]GN ⚠
A3	RQT5243-B	O/I BOOK	[M]GN
A3	RQT5244-K	O/I BOOK	[M]GT
A4	RSA0006	FM ANTENNA WIRE	[M]
A5	RSA0022	AM LOOP ANTENNA	[M]

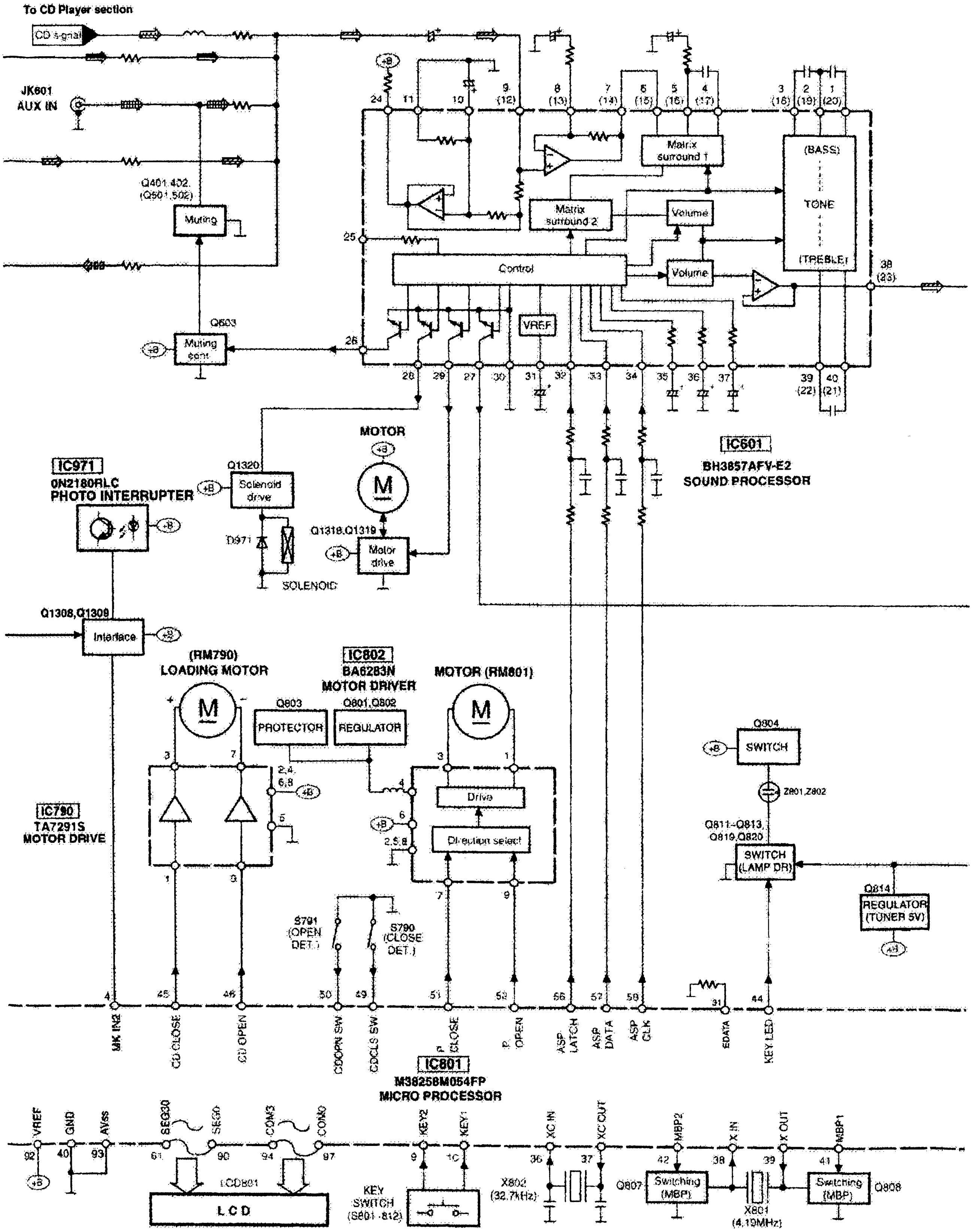
15.6. Packaging

Printed in Singapore
P000501100 J/E/H/K/L/PRT

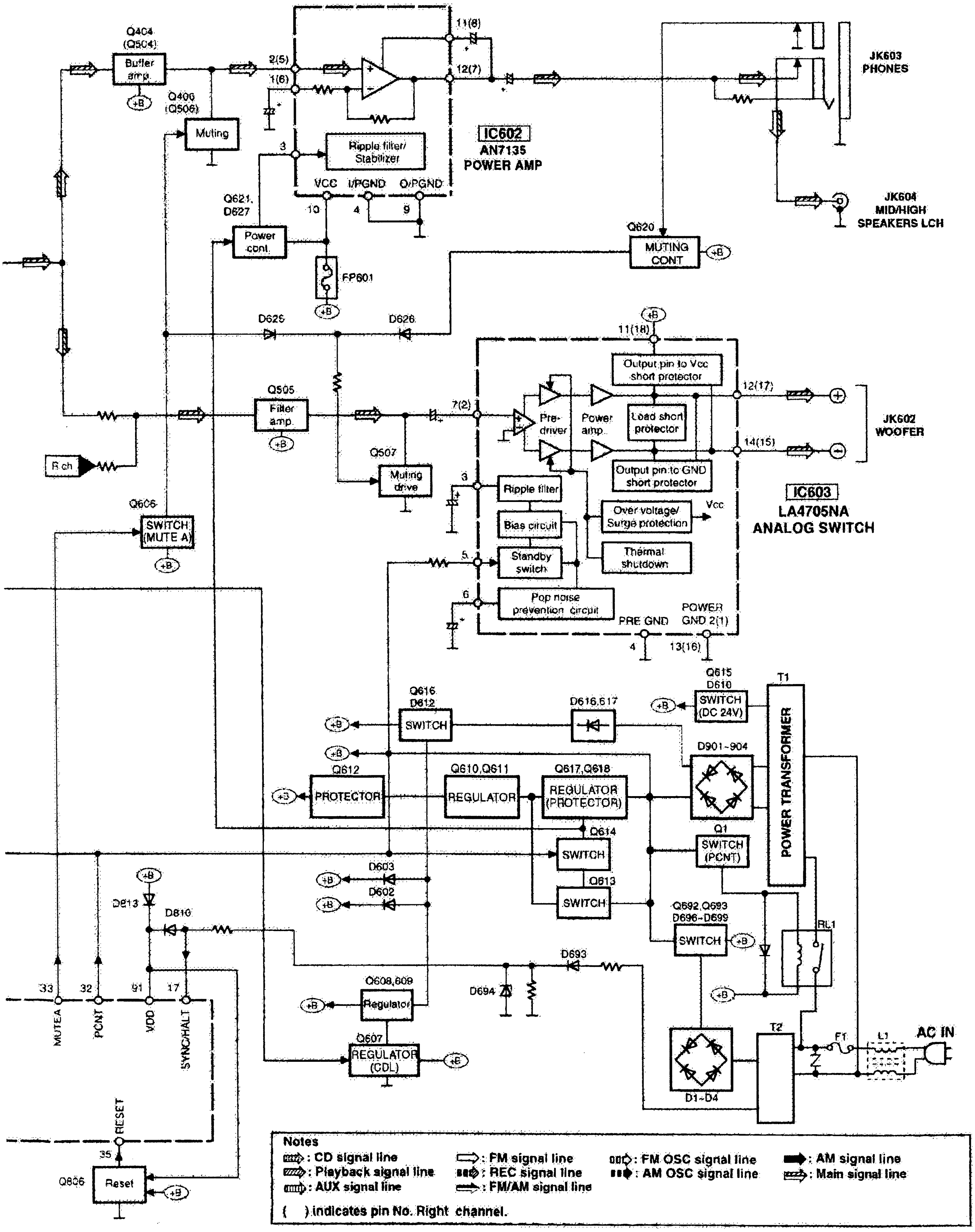
[1]© 2000 Matsushita Electronics (s) Pte. Ltd. All rights reserved.
Unauthorized copying and distribution is a violation of law.


FM ANT
Z120
Q1
RF AMP
Q2
MIXER
Q3
OSC
Q4
BUFFER
+B (FM)
CF201
Q101
FM IF AMP
CF202
AM ANT
Z101
AM ANT COIL
AM OSC COIL
(FM) +B
Q515(Q516)
SWITCH
IC101
LA1833MN-TLM
FM/AM IF AMP, DET/AM OSC, MIX/FM MPX
RCH
ALC
AM OSC
AM MIX
AM RF AMP
BUFFER
DECODER
PHASE DET
PILOT CANCEL
LEVEL DET
S-CURVE
AGC
AM IF
AM DET
STEREO SWITCH
FM IF
FM DET
AM/FM IF BUFFER
COMP
VCO
TUNING DRIVE
FF
FF
FF
PILOT DET
REG
REG
SD
ST
X102
+B
Z102
AM IFT
ST
SD
PHASE DETECTOR CHARGE PUMP
REFERENCE DIVIDER
X103
UNLOCK DETECTOR
SWALLOW COUNTER 1/6,1/17,4 BITS
1
2
12 BITS PROGRAMMABLE DIVIDER
UNIVERSAL COUNTER
SHIFT REGISTER LATCH
C2B I/F
DO
CE
DI
CL
POWER ON RESET
+B
Q106
POWER SUPPLY CONTROL
+B
+B (FM)
IC102
LC72131MDTRM
PLL FREQUENCY SYNTHESIZER
E


IC1302
TA8142AP
PB/REC REC_AMP
N.F
Q1101
(Q1201)
Head select
(PLAY: ON)
R/P
HEAD
(L ch)
Q1102
(Q1202)
Head select
(REC: ON)
2(7)
1(8)
3(6)
13
ALC
GND
12
14(11)
16(9)
15(10)
Vcc
5
Q1105
(Q1205)
Switching
(PLAY ON)
Switch-
ing
Q1106
(Q1206)
Tape
select
Q1103
(Q1203)
Q1104
(Q1204)
Switching
(PLAY ON)
IC1301
BA7755A
ANALOG SWITCH
Vcc GND
1
5
4
2
3
+B
Q1311,
Q1317
Switching
(R/P select)
ERASE
HEAD
L1301
Q1305~Q1307
Bias OSC
control
Q1313
Tape
select
Q1304
SWITCH
(DTM)
R ch
IC1303
BA4558FE2
OP AMP
D1303
Q1330
TPS
DRIVE
S973
(ATS/CrO2)
Q1303
Switching
(REC : ON)
Q1302
Switching
(Beat proof)
Q1310
Switching
(Beat proof)
To CD player section
CDRST
RESTSW
STAT
SUBQ
SQCK
BLKCK
MLD
MDATA
MCLK
VR803
(TREBLE)
VR802
(BASS)
S972
(HALF)
S971
(MODE)
S974
(R REC INH.)
S975
(F REC INH.)
Interface
Z971
55
54
53
23
20
22
26
24
25
7
8
28
29
30
3
27
MCLK
MDATA
MLD
BLKCK
SQCK
SUBQ
STAT
REST SW
CDRST
TRBL VR
BASS VR
BP
RECH
CrO2
MK IN1
DMT
IC801
M38258M054FP
MICRO PROCESSOR
PLL CE
PLL DI
PLL CL
T MUTE
STEREO
SD
PLL DO
VL3
VL2
VL1
CR TMR
PWRDET
DES1
DES2
DES3
RMT IN
JOG2
JOG1
12
14
13
11
19
16
15
98
99
2
5
6
21
34
43
18
47
48
D809
Z803
REMOTE
SENSOR
VR801
(VOLUME)
PLL CE
PLL DI
PLL CL
T MUTE
SD
PLL DO



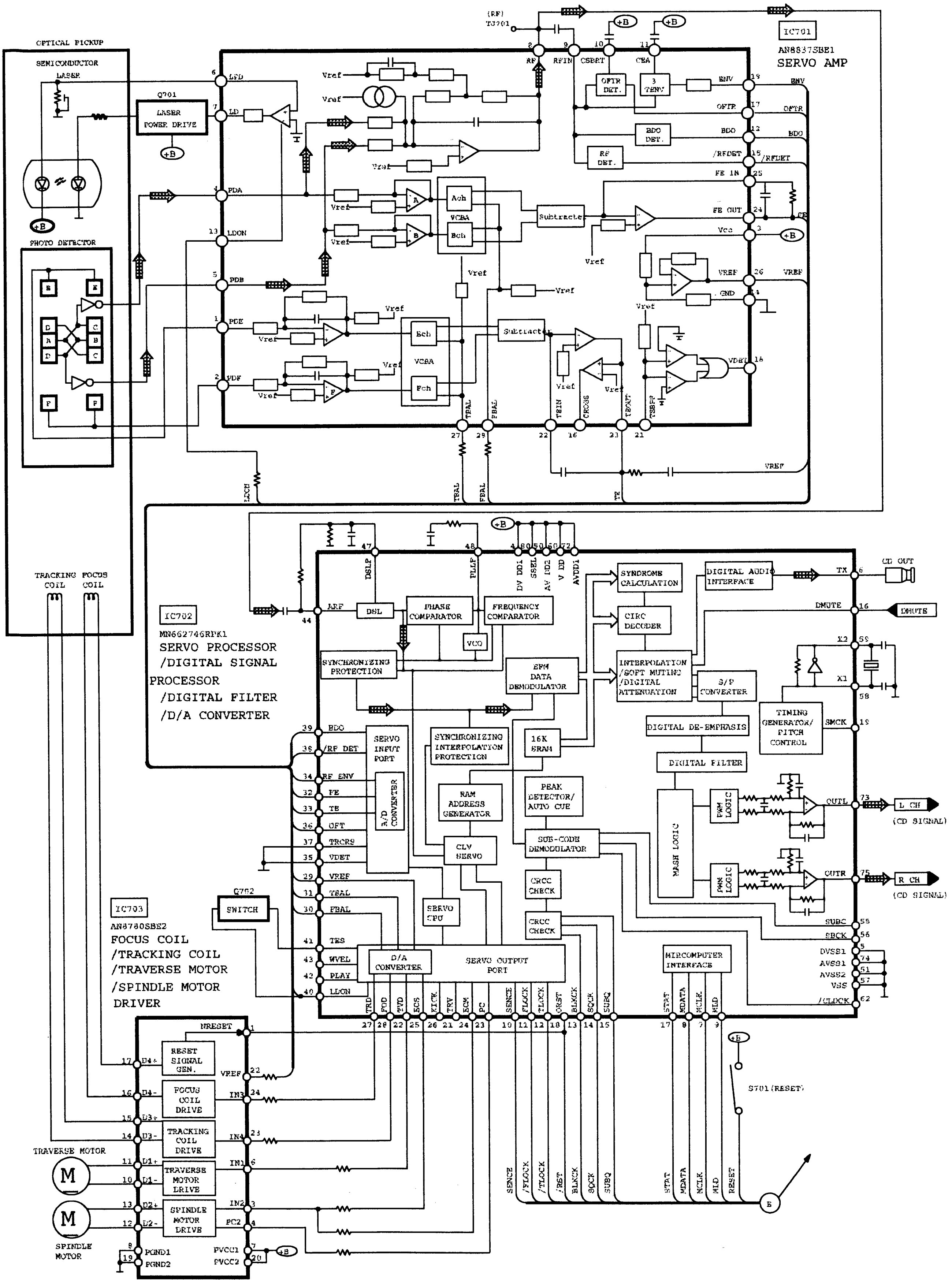
To CD Player section
CD signal
JK601
AUX IN
Q401,402,
(Q501,502)
Muting
Q603
Muting
cont.
+B
IC601
BH3857AFV-E2
SOUND PROCESSOR
Matrix
surround 1
Matrix
surround 2
Volume
Volume
(BASS)
TONE
(TREBLE)
Control
VREF
38
(23)
39
(22)
40
(21)
IC971
ON2180RLC
PHOTO INTERRUPTER
Q1320
Solenoid
drive
D971
SOLENOID
MOTOR
Q1318,Q1319
Motor
drive
Q1308,Q1309
Interface
(RM790)
LOADING MOTOR
IC802
BA6283N
MOTOR DRIVER
MOTOR (RM801)
Q803
PROTECTOR
Q801,Q802
REGULATOR
Drive
Direction select
IC790
TA7291S
MOTOR DRIVE
S791
(OPEN
DET.)
S790
(CLOSE
DET.)
Q804
SWITCH
Z801,Z802
Q811~Q813,
Q819,Q820
SWITCH
(LAMP DR)
Q814
REGULATOR
(TUNER 5V)
MK IN2
CD CLOSE
CD OPEN
CDOPN SW
CDCLS SW
P. CLOSE
P. OPEN
ASP LATCH
ASP DATA
ASP CLK
EDATA
KEY LED
IC801
M38258M054FP
MICRO PROCESSOR
VREF
GND
AVss
SEG30
SEG0
COM3
COM0
KEY2
KEY1
XC IN
XC OUT
MBP2
X IN
X OUT
MBP1
LCD801
LCD
KEY
SWITCH
(S801-812)
X802
(32.7kHz)
Q807
Switching
(MBP)
X801
(4.19MHz)
Switching
(MBP)
Q808

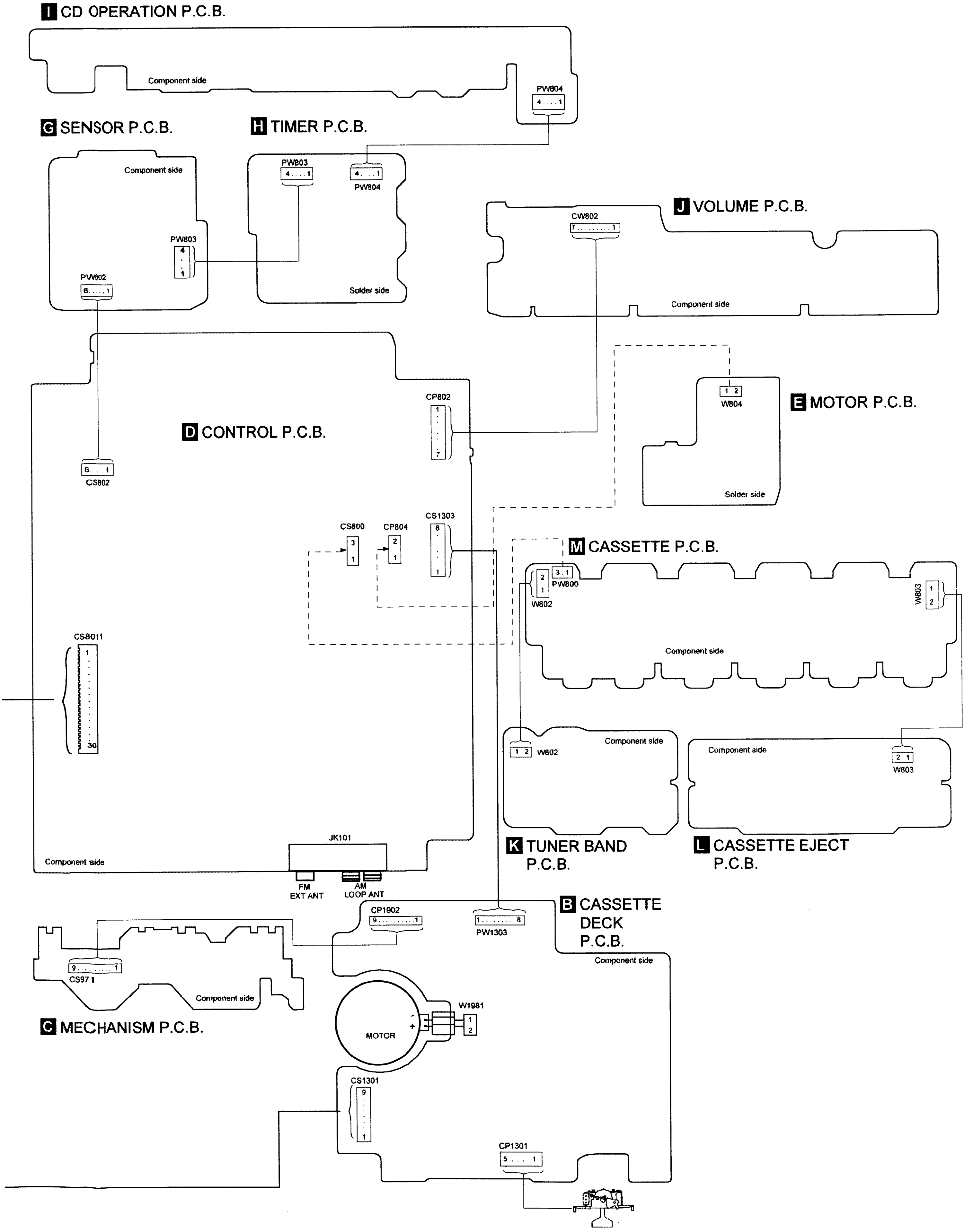

Q404
(Q504)
Buffer amp.
+B
Q406
(Q506)
Muting
2(5)
1(6)
11(8)
12(7)
3
Ripple filter/ Stabilizer
IC602
AN7135
POWER AMP
VCC
I/PGND
O/PGND
10
4
9
Q621,
D627
Power cont.
FP601
+B
Q620
MUTING CONT
+B
JK603
PHONES
JK604
MID/HIGH
SPEAKERS LCH
D625
D626
11(18)
+B
Output pin to Vcc short protector
Q505
Filter amp.
+B
7(2)
Pre-driver
Power amp.
Load short protector
12(17)
14(15)
JK602
WOOFER
R ch
Q507
Muting drive
Output pin to GND short protector
3
Ripple filter
IC603
LA4705NA
ANALOG SWITCH
Bias circuit
Over voltage/ Surge protection
Vcc
Q606
SWITCH (MUTE A)
+B
5
Standby switch
Thermal shutdown
6
Pop noise prevention circuit
PRE GND
POWER GND 2(1)
4
13(16)
Q615
D610
SWITCH (DC 24V)
+B
T1
Q616
D612
SWITCH
D616,617
+B
+B
D901~904
POWER TRANSFORMER
Q612
PROTECTOR
Q610,Q611
REGULATOR
Q617,Q618
REGULATOR (PROTECTOR)
Q614
SWITCH
Q1
SWITCH (PCNT)
D603
D602
+B
+B
Q613
SWITCH
+B
D613
D810
Q692,Q693
D696~D699
SWITCH
+B
RL1
D693
D694
+B
33
32
91
17
MUTEA
PCNT
VDD
SYNC/HALT
Q608,609
Regulator
+B
Q607
REGULATOR (CDL)
+B
T2
F1
L1
AC IN
D1~D4
RESET
35
Q606
Reset
+B

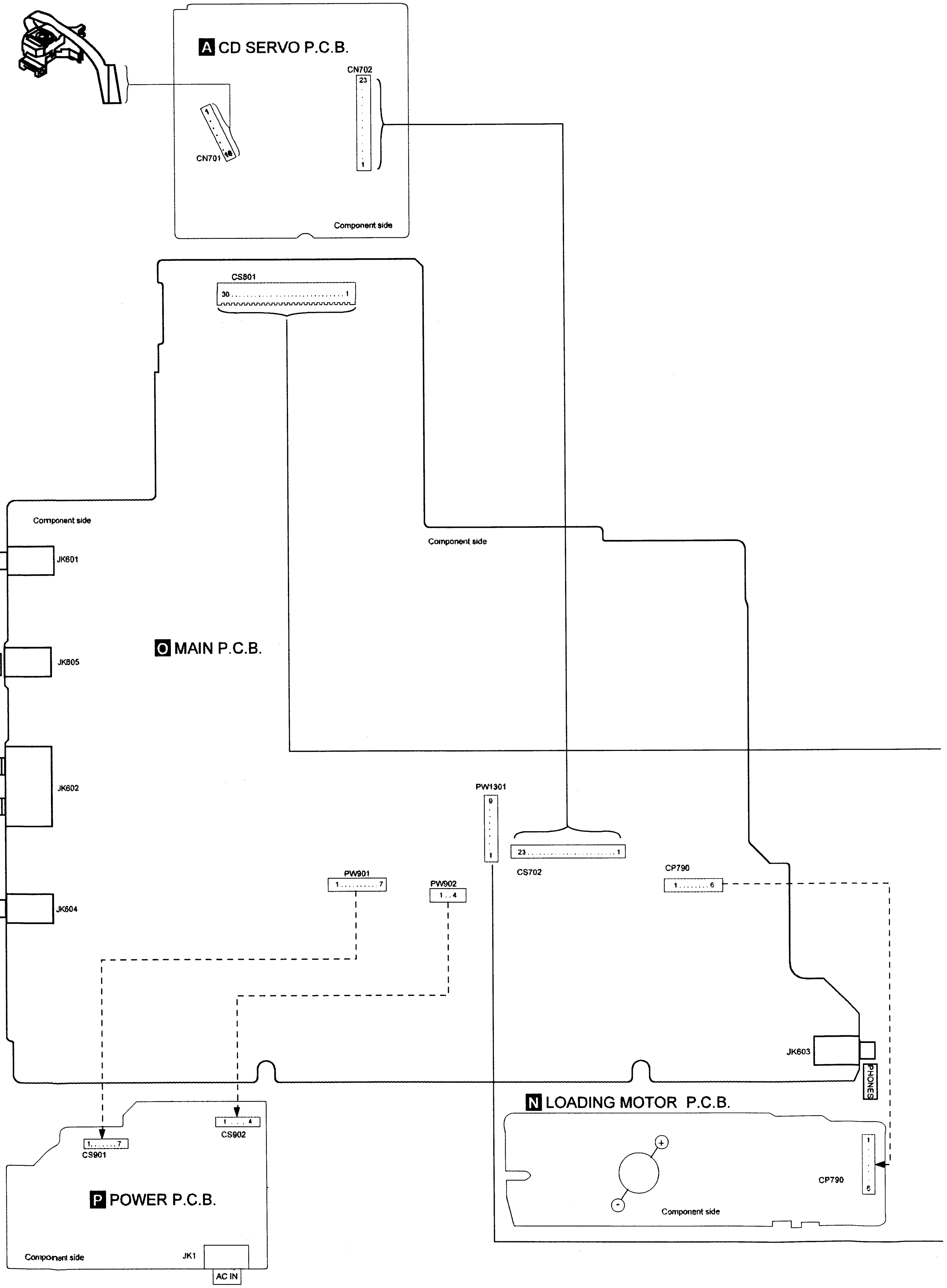
Notes

▨ : CD signal line
▨ : Playback signal line
▨ : AUX signal line
⇨ : FM signal line
▨ : REC signal line
⇨ : FM/AM signal line
▯▯⇨ : FM OSC signal line
▮▮➧ : AM OSC signal line
➡ : AM signal line
▨ : Main signal line

( ) indicates pin No. Right channel.


OPTICAL PICKUP
SEMICONDUCTOR LASER
PHOTO DETECTOR
TRACKING COIL
FOCUS COIL
Q701
LASER POWER DRIVE
+B
(RF) TJ701
IC701
AN8837SBE1
SERVO AMP
LPD
LD
PDA
LDON
PDB
PDE
PDF
RF
RFIN
CSBRT
CEA
OFTR DET.
3 TENV
ENV
OFTR
BDO
BDO DET.
/RFDET
RF DET.
FE IN
FE OUT
FE
Vcc
VREF
GND
VDET
Vref
Ach
Bch
VCBA
Ech
Fch
Subtracter
TBAL
FBAL
TEIN
CROSS
TEOUT
TSBF
TE
LDON
IC702
MN662746RPK1
SERVO PROCESSOR
/DIGITAL SIGNAL PROCESSOR
/DIGITAL FILTER
/D/A CONVERTER
ARF
DSL
DSLF
PLLF
PHASE COMPARATOR
FREQUENCY COMPARATOR
VCO
SYNCHRONIZING PROTECTION
EFM DATA DEMODULATOR
SYNDROME CALCULATION
CIRC DECODER
INTERPOLATION /SOFT MUTING /DIGITAL ATTENUATION
S/P CONVERTER
DIGITAL AUDIO INTERFACE
TX
CD OUT
DMUTE
X2
X1
TIMING GENERATOR/ PITCH CONTROL
SMCK
DIGITAL DE-EMPHASIS
DIGITAL FILTER
MASH LOGIC
PWM LOGIC
OUTL
OUTR
L CH
R CH
(CD SIGNAL)
DV DD1
SSEL
AV DD2
V DD
AVDD1
SERVO INPUT PORT
A/D CONVERTER
SYNCHRONIZING INTERPOLATION PROTECTION
16K SRAM
RAM ADDRESS GENERATOR
PEAK DETECTOR/ AUTO CUE
CLV SERVO
SUB-CODE DEMODULATOR
CRCC CHECK
SERVO CPU
D/A CONVERTER
SERVO OUTPUT PORT
MICROCOMPUTER INTERFACE
BDO
/RF DET
RF ENV
FE
TE
OFT
TRCRS
VDET
VREF
TBAL
FBAL
TES
WVEL
PLAY
LDON
TRD
FOD
TVD
ECS
KICK
TRV
ECM
PC
SENCE
FLOCK
/TLOCK
/RST
BLKCK
SQCK
SUBQ
STAT
MDATA
MCLK
MLD
SUBC
SBCK
DVSS1
AVSS1
AVSS2
VSS
/CLDCK
RESET
S701 (RESET)
Q702
SWITCH
IC703
AN8780SBE2
FOCUS COIL
/TRACKING COIL
/TRAVERSE MOTOR
/SPINDLE MOTOR
DRIVER
NRESET
RESET SIGNAL GEN.
FOCUS COIL DRIVE
TRACKING COIL DRIVE
TRAVERSE MOTOR DRIVE
SPINDLE MOTOR DRIVE
D4+
D4-
D3+
D3-
D1+
D1-
D2+
D2-
PGND1
PGND2
VREF
IN3
IN4
IN1
IN2
PC2
PVCC1
PVCC2
TRAVERSE MOTOR
SPINDLE MOTOR
M

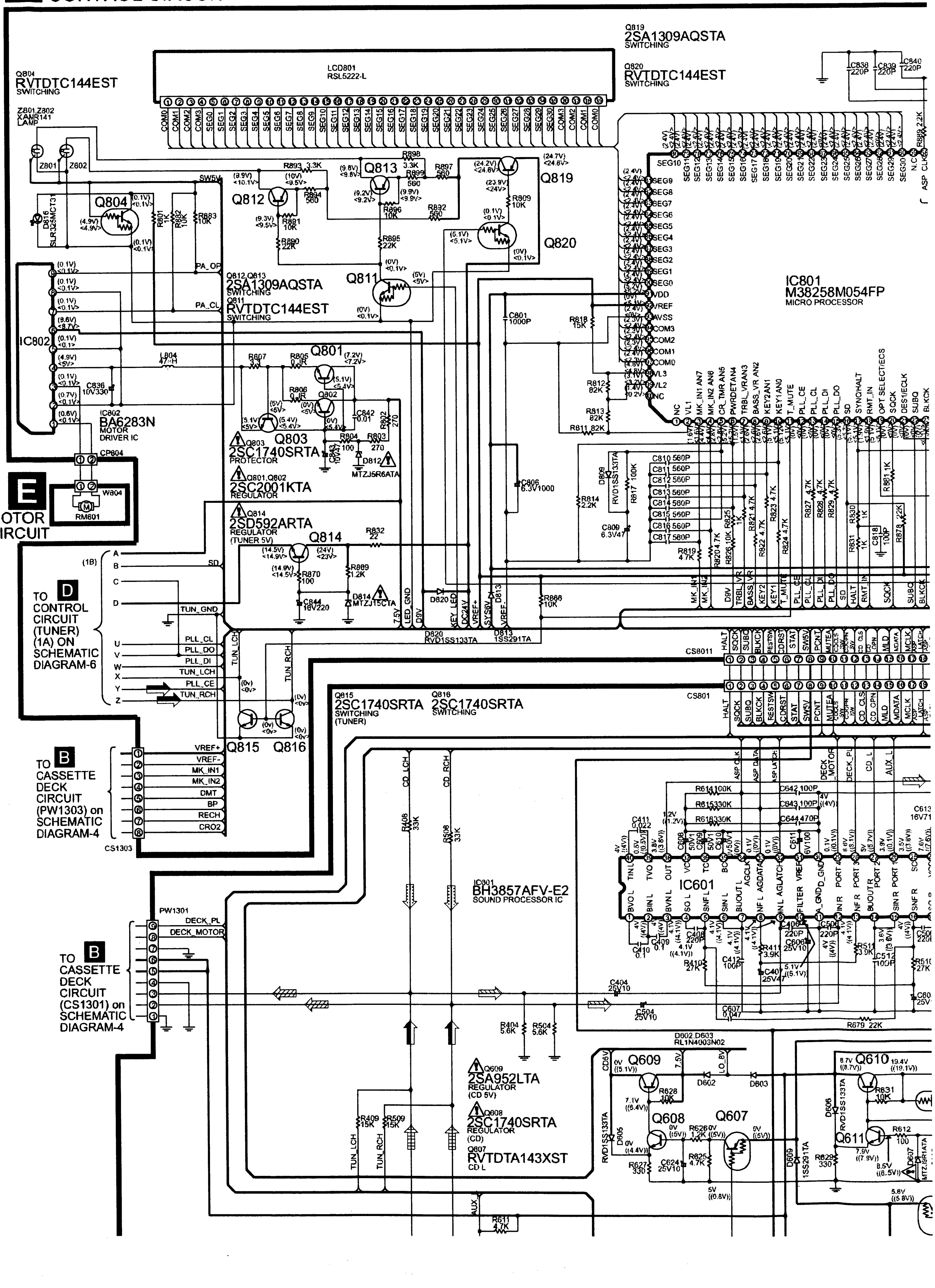

I CD OPERATION P.C.B.
Component side
PW804
4 1
G SENSOR P.C.B.
Component side
PW803
4 . . 1
PW802
6 1
H TIMER P.C.B.
PW803
4 1
4 . . . 1
PW804
Solder side
J VOLUME P.C.B.
CW802
7 1
Component side
E MOTOR P.C.B.
1 2
W804
Solder side
D CONTROL P.C.B.
CP802
1 7
6 . . . 1
CS802
CS800
3 1
CP804
2 1
CS1303
8 . . . 1
CS8011
1 . . . 30
JK101
FM EXT ANT
AM LOOP ANT
Component side
M CASSETTE P.C.B.
2 1
W802
3 1
PW800
W803
1 2
Component side
1 2
W802
Component side
K TUNER BAND P.C.B.
Component side
2 1
W803
L CASSETTE EJECT P.C.B.
CP1902
9 1
1 8
PW1303
B CASSETTE DECK P.C.B.
Component side
9 1
CS971
Component side
C MECHANISM P.C.B.
MOTOR
-
+
W1981
1 2
CS1301
9 . . . 1
CP1301
5 . . . 1


A CD SERVO P.C.B.
CN702
23
1
1
16
CN701
Component side
CS801
30
1
Component side
Component side
AUX
JK601
OPTICAL OUT
JK805
O MAIN P.C.B.
JK602
SPEAKERS
HIGH
JK604
PW1301
9
1
23
1
CS702
CP790
1 6
PW901
1 7
PW902
1 . . 4
JK603
PHONES
N LOADING MOTOR P.C.B.
+
-
CP790
1
6
Component side
1 7
CS901
1 . . . 4
CS902
P POWER P.C.B.
Component side
JK1
AC IN

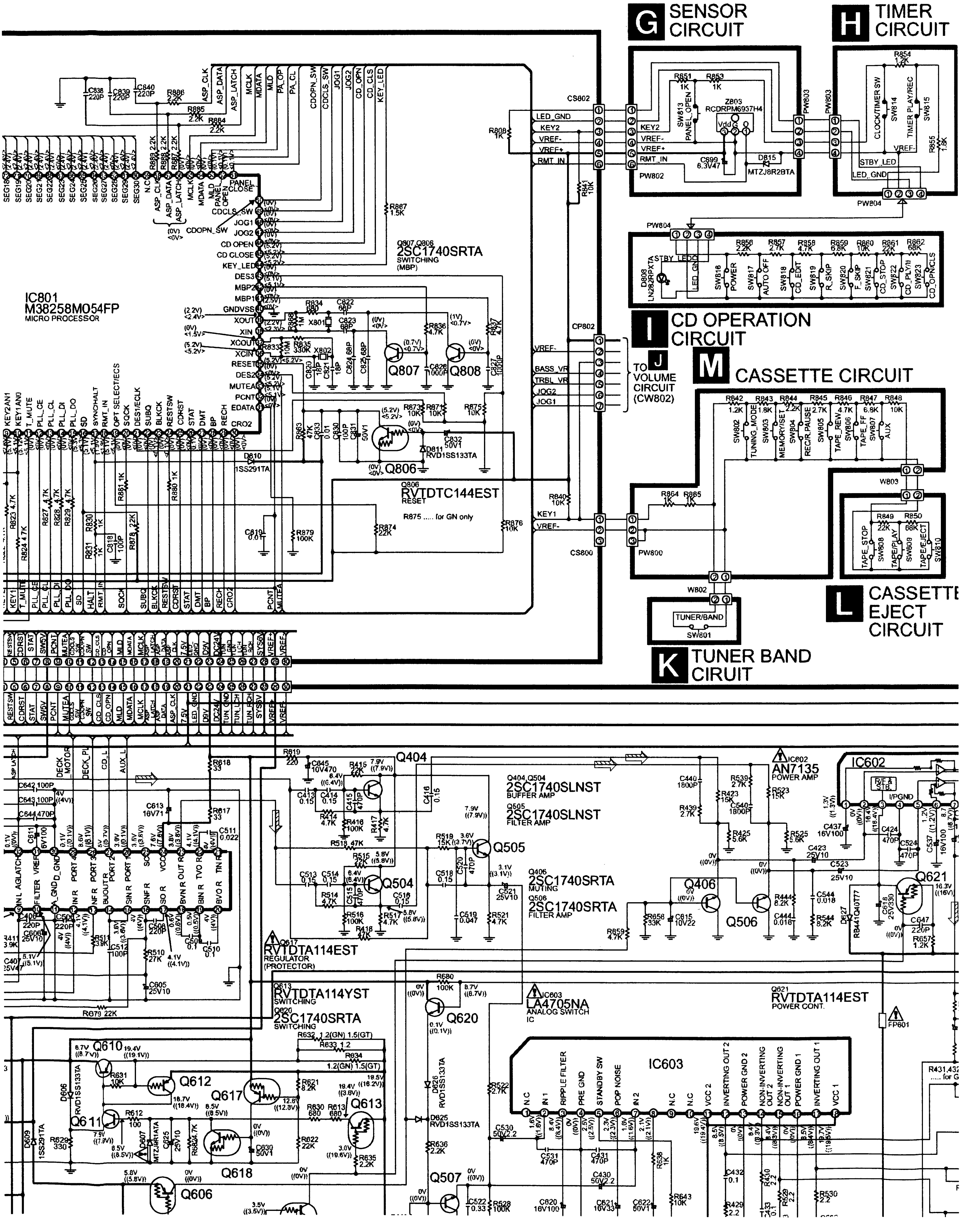
SCHEMATIC DIAGRAM-7

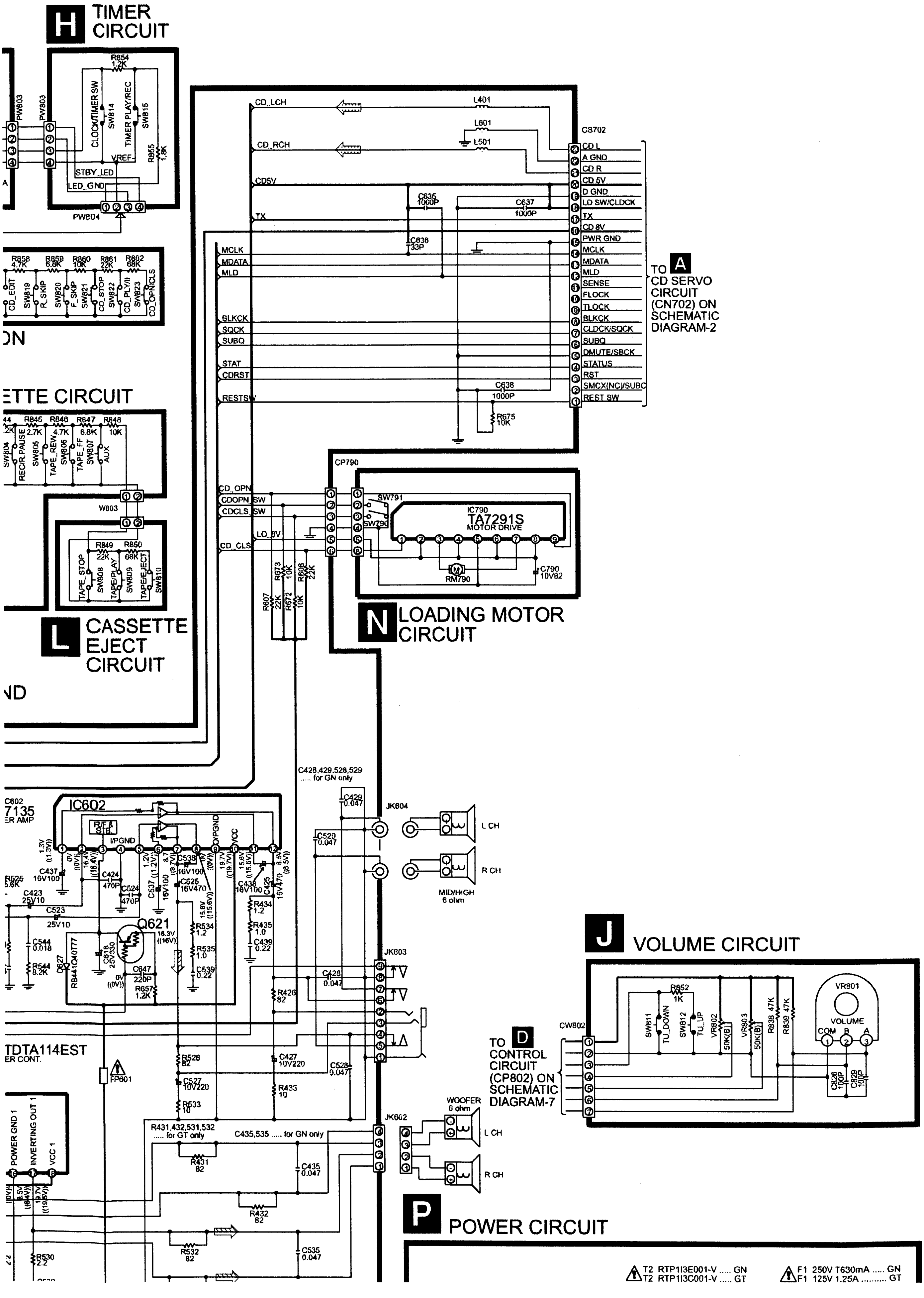
—— : +B signal line
⇨ : Main signal line
▥⇨ : AUX signal line
➡ : FM/AM signal line
▨⇨ : CD signal line
▨⇨ : Playback signal line

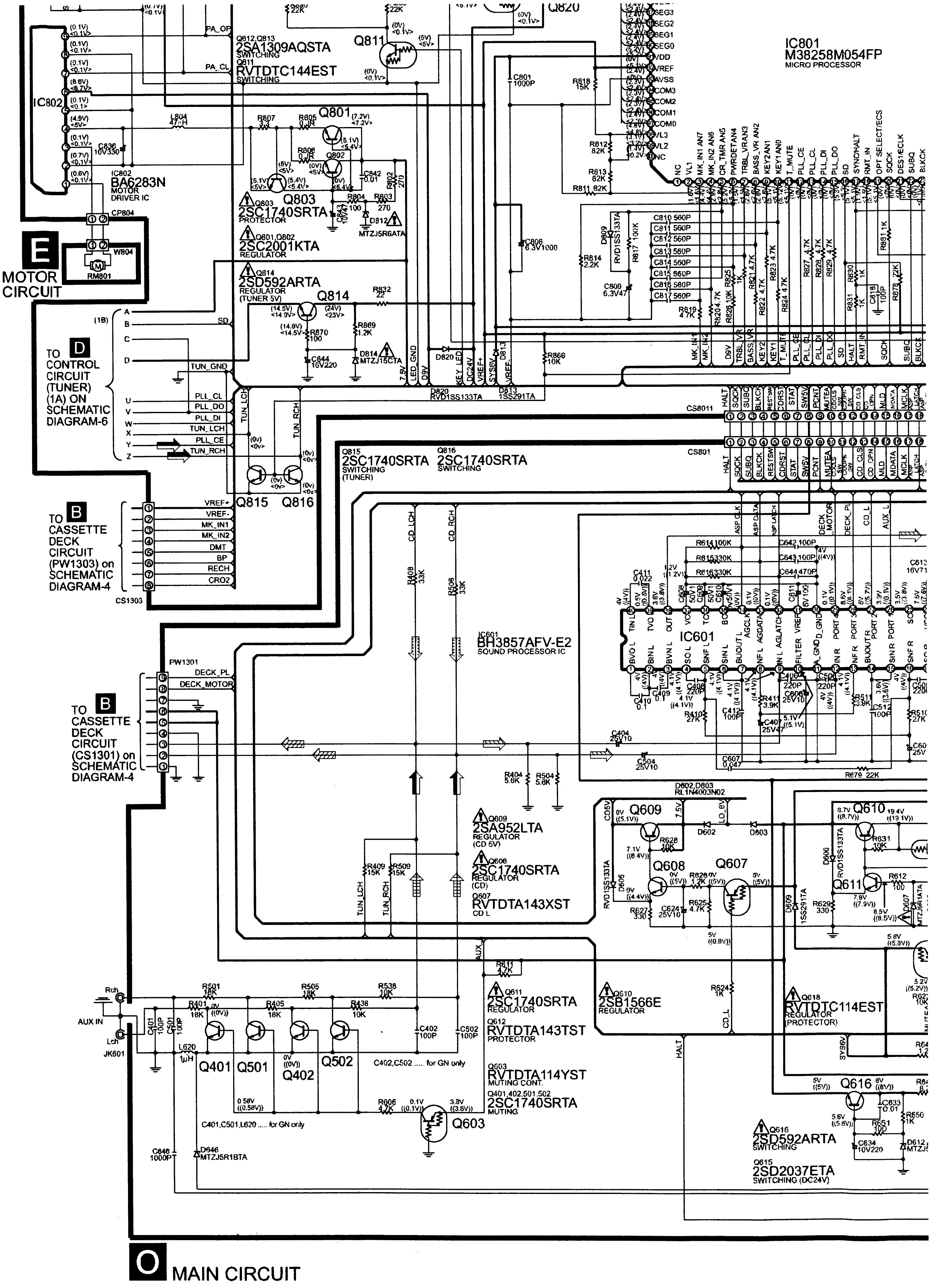
D CONTROL CIRCUIT

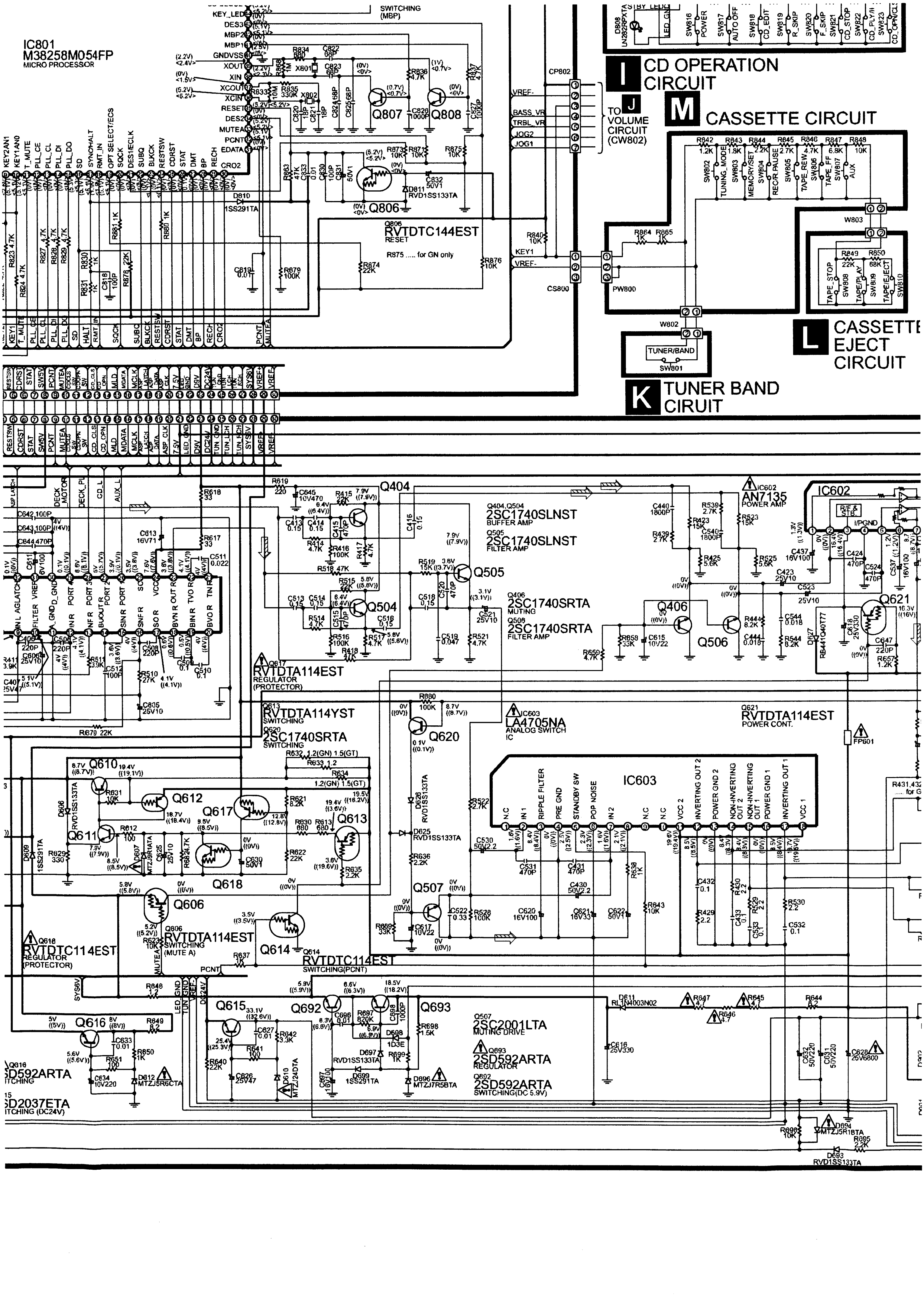


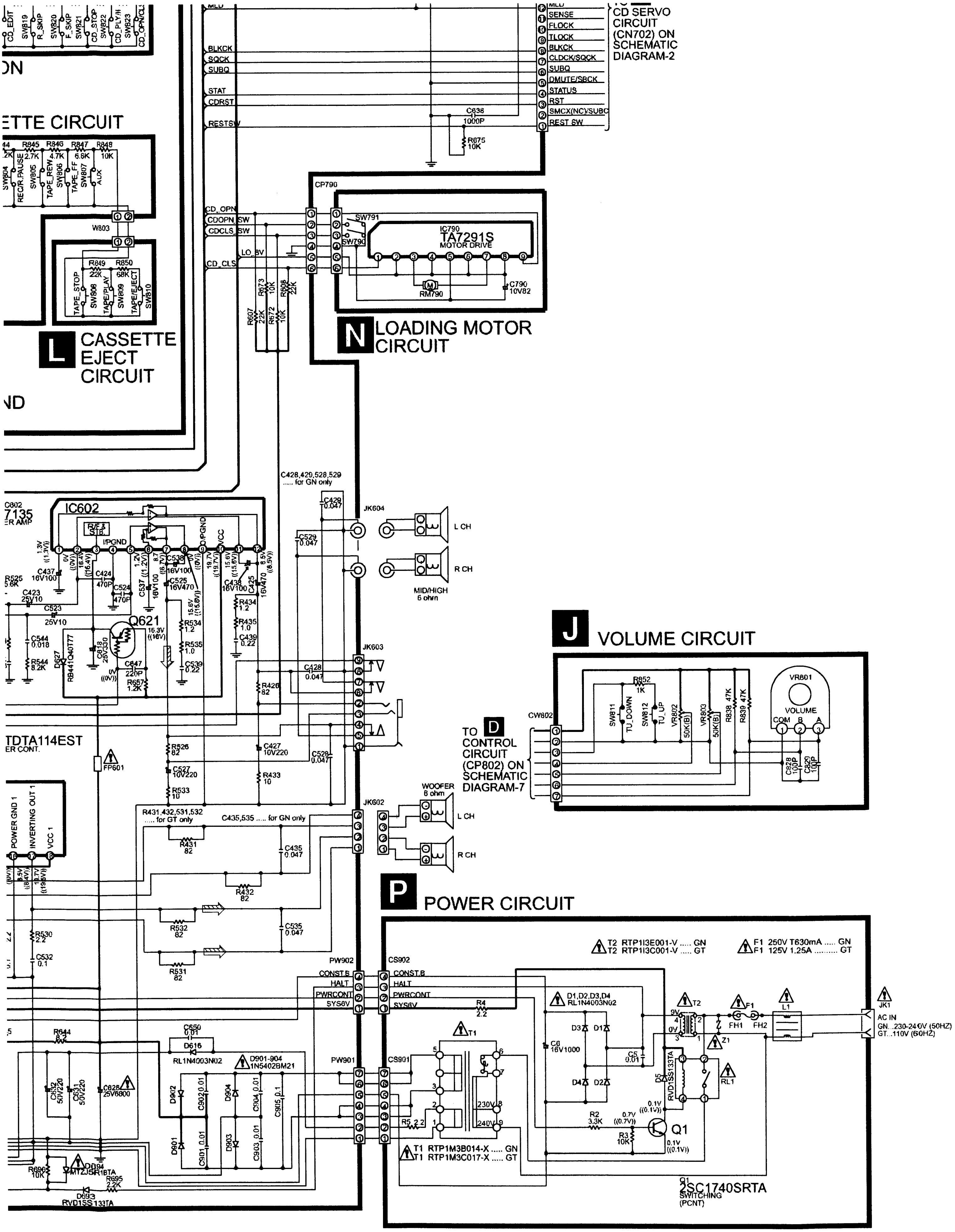
LCD801
RSL5222-L
Q819 2SA1309AQSTA SWITCHING
Q820 RVTDTC144EST SWITCHING
Q804 RVTDTC144EST SWITCHING
Z801,Z802 XAMR141 LAMP
Q812,Q813 2SA1309AQSTA SWITCHING
Q811 RVTDTC144EST SWITCHING
IC801
M38258M054FP
MICRO PROCESSOR
IC802
BA6283N
MOTOR DRIVER IC
Q803 2SC1740SRTA PROTECTOR
Q801,Q802 2SC2001KTA REGULATOR
Q814 2SD592ARTA REGULATOR (TUNER 5V)
D812 MTZJ5R6ATA
D814 MTZJ15CTA
D820 RVD1SS133TA
D813 1SS291TA
D809 RVD1SS133TA
CP804
W804
RM801
E
MOTOR CIRCUIT
TO D CONTROL CIRCUIT (TUNER) (1A) ON SCHEMATIC DIAGRAM-6
Q815 2SC1740SRTA SWITCHING (TUNER)
Q816 2SC1740SRTA SWITCHING
CS8011
CS801
TO B CASSETTE DECK CIRCUIT (PW1303) on SCHEMATIC DIAGRAM-4
CS1303
TO B CASSETTE DECK CIRCUIT (CS1301) on SCHEMATIC DIAGRAM-4
PW1301
IC601
BH3857AFV-E2
SOUND PROCESSOR IC
Q609 2SA952LTA REGULATOR (CD 5V)
Q608 2SC1740SRTA REGULATOR (CD)
Q607 RVTDTA143XST CD L
D602,D603 RL1N4003N02
Q609
Q608
Q607
Q610
Q611

G SENSOR CIRCUIT
H TIMER CIRCUIT
I CD OPERATION CIRCUIT
J TO VOLUME CIRCUIT (CW802)
M CASSETTE CIRCUIT
L CASSETTE EJECT CIRCUIT
K TUNER BAND CIRUIT
IC801
M38258M054FP
MICRO PROCESSOR
Q807,Q808
2SC1740SRTA
SWITCHING (MBP)
Q806
RVTDTC144EST
RESET
R875 ..... for GN only
Q404,Q504
2SC1740SLNST
BUFFER AMP
Q505
2SC1740SLNST
FILTER AMP
Q406
2SC1740SRTA
MUTING
Q506
2SC1740SRTA
FILTER AMP
Q617
RVTDTA114EST
REGULATOR (PROTECTOR)
Q613
RVTDTA114YST
SWITCHING
Q620
2SC1740SRTA
SWITCHING
IC603
LA4705NA
ANALOG SWITCH IC
IC602
AN7135
POWER AMP
Q621
RVTDTA114EST
POWER CONT.
IC603
N.C
IN 1
RIPPLE FILTER
PRE GND
STANDBY SW
POP NOISE
IN 2
N.C
N.C
VCC 2
INVERTING OUT 2
POWER GND 2
NON-INVERTING OUT 2
NON-INVERTING OUT 1
POWER GND 1
INVERTING OUT 1
VCC 1
ZB03 RCDRPM6937H4
D815 MTZJ8R2BTA
D808 LN282RPXTA
D810 1SS291TA
D811 RVD1SS133TA
CS802
PW802
PW803
PW804
CP802
CS800
PW800
W802
W803
SW801 TUNER/BAND
SW813 PANEL_OPEN
SW814 CLOCK/TIMER SW
SW815 TIMER PLAY/REC
SW816 POWER
SW817 AUTO OFF
SW818 CD_EDIT
SW819 R_SKIP
SW820 F_SKIP
SW821 CD_STOP
SW822 CD_PLY/II
SW823 CD_OPN/CLS
SW802 TUNING_MODE
SW803 MEMORY/SET
SW804 REC/R.PAUSE
SW805 TAPE_REW
SW806 TAPE_FF
SW807 AUX
SW808 TAPE_STOP
SW809 TAPE/PLAY
SW810 TAPE/EJECT
LED_GND
KEY2
VREF-
VREF+
RMT_IN
STBY_LED
KEY1
BASS_VR
TRBL_VR
JOG2
JOG1
R431,432 ..... for G
FP601


H TIMER CIRCUIT
PW803
PW804
R854 1.2K
CLOCK/TIMER SW
SW814
TIMER PLAY/REC
SW815
R855 1.8K
VREF
STBY_LED
LED_GND
R858 4.7K
R859 6.8K
R860 10K
R861 22K
R862 68K
CD_EDIT
SW819
R_SKIP
SW820
F_SKIP
SW821
CD_STOP
SW822
CD_PLY/II
SW823
CD_OPN/CLS
ETTE CIRCUIT
R845 2.7K
R846 4.7K
R847 6.8K
R848 10K
SW804
REC/R.PAUSE
SW805
TAPE_REW
SW806
TAPE_FF
SW807
AUX
W803
R849 22K
R850 68K
TAPE_STOP
SW808
TAPE/PLAY
SW809
TAPE/EJECT
SW810
L CASSETTE EJECT CIRCUIT
CD_LCH
CD_RCH
CD5V
TX
L401
L601
L501
C635 1000P
C637 1000P
C636 33P
C638 1000P
R675 10K
MCLK
MDATA
MLD
BLKCK
SQCK
SUBQ
STAT
CDRST
RESTSW
CS702
CD L
A GND
CD R
CD 5V
D GND
LD SW/CLDCK
TX
CD 8V
PWR GND
MCLK
MDATA
MLD
SENSE
FLOCK
TLOCK
BLKCK
CLDCK/SQCK
SUBQ
DMUTE/SBCK
STATUS
RST
SMCX(NC)/SUBC
REST SW
TO A CD SERVO CIRCUIT (CN702) ON SCHEMATIC DIAGRAM-2
CP790
CD_OPN
CDOPN_SW
CDCLS_SW
LO_8V
CD_CLS
R607 22K
R673 10K
R672 10K
R608 22K
SW791
SW790
IC790
TA7291S
MOTOR DRIVE
RM790
C790 10V82
N LOADING MOTOR CIRCUIT
C428,429,528,529 ..... for GN only
C429 0.047
C529 0.047
JK604
L CH
R CH
MID/HIGH 6 ohm
IC602
7135
ER AMP
R/F & STB
I/PGND
O/PGND
VCC
C437 16V100
C424 470P
C524 470P
C537 16V100
C538 16V100
C525 16V470
C436 16V100
C425 16V470
R434 1.2
R435 1.0
C439 0.22
R534 1.2
R535 1.0
C539 0.22
R525 5.6K
C423 25V10
C523 25V10
C544 0.018
R544 8.2K
D627 RB441Q40T77
C618 25V330
Q621
C647 220P
R657 1.2K
TDTA114EST
ER CONT.
FP601
JK603
C428 0.047
R426 82
C427 10V220
C528 0.047
R433 10
R526 82
C527 10V220
R533 10
R431,432,531,532 ..... for GT only
C435,535 ..... for GN only
R431 82
C435 0.047
R432 82
R532 82
C535 0.047
R530 2.2
POWER GND 1
INVERTING OUT 1
VCC 1
JK602
WOOFER 6 ohm
L CH
R CH
J VOLUME CIRCUIT
CW802
R852 1K
SW811
TU_DOWN
SW812
TU_UP
VR802 50K(B)
VR803 50K(B)
R838 47K
R839 47K
VR801
VOLUME
COM
B
A
C828 100P
C829 100P
TO D CONTROL CIRCUIT (CP802) ON SCHEMATIC DIAGRAM-7
P POWER CIRCUIT
T2 RTP1I3E001-V ..... GN
T2 RTP1I3C001-V ..... GT
F1 250V T630mA ..... GN
F1 125V 1.25A .... GT


IC801
M38258M054FP
MICRO PROCESSOR
IC802
BA6283N
MOTOR DRIVER IC
E
MOTOR CIRCUIT
CP804
W804
RM801
Q820
Q811
Q812,Q813
2SA1309AQSTA
SWITCHING
Q811
RVTDTC144EST
SWITCHING
Q801
Q802
Q803
2SC1740SRTA
PROTECTOR
Q801,Q802
2SC2001KTA
REGULATOR
Q814
2SD592ARTA
REGULATOR
(TUNER 5V)
D812
MTZJ5R6ATA
D814
MTZJ15CTA
D820
RVD1SS133TA
D813
1SS291TA
L804
47μH
C836
10V330
C801
1000P
R818
15K
R812
82K
R813
82K
R811 82K
C806
6.3V1000
R814
2.2K
D809
RVD1SS133TA
R817 100K
C809
6.3V47
R819
4.7K
C810 560P
C811 560P
C812 560P
C813 560P
C814 560P
C815 560P
C816 560P
C817 560P
R866
10K
TO D CONTROL CIRCUIT (TUNER) (1A) ON SCHEMATIC DIAGRAM-6
TUN_GND
PLL_CL
PLL_DO
PLL_DI
TUN_LCH
PLL_CE
TUN_RCH
SD
PA_OP
PA_CL
Q815
2SC1740SRTA
SWITCHING
(TUNER)
Q816
2SC1740SRTA
SWITCHING
CS8011
CS801
HALT
SQCK
SUBQ
BLKCK
RESTSW
CDRST
STAT
SW5V
PCNT
MUTEA
MLD
MDATA
MCLK
TO B CASSETTE DECK CIRCUIT (PW1303) on SCHEMATIC DIAGRAM-4
VREF+
VREF-
MK_IN1
MK_IN2
DMT
BP
RECH
CRO2
CS1303
TO B CASSETTE DECK CIRCUIT (CS1301) on SCHEMATIC DIAGRAM-4
PW1301
DECK_PL
DECK_MOTOR
CD_LCH
CD_RCH
R408
33K
R508
33K
IC601
BH3857AFV-E2
SOUND PROCESSOR IC
R614 100K
R615 330K
R616 330K
C642 100P
C643 100P
C644 470P
C411
0.022
R404
5.6K
R504
5.6K
C404
25V10
C504
25V10
C607
0.047
R679 22K
D602,D603
RL1N4003N02
Q609
2SA952LTA
REGULATOR
(CD 5V)
Q608
2SC1740SRTA
REGULATOR
(CD)
Q607
RVTDTA143XST
CD L
Q610
2SB1566E
REGULATOR
Q611
2SC1740SRTA
REGULATOR
Q612
RVTDTA143TST
PROTECTOR
Q603
RVTDTA114YST
MUTING CONT.
Q401,402,501,502
2SC1740SRTA
MUTING
Q618
RVTDTC114EST
REGULATOR
(PROTECTOR)
Q616
2SD592ARTA
SWITCHING
Q615
2SD2037ETA
SWITCHING (DC24V)
R409
15K
R509
15K
TUN_LCH
TUN_RCH
AUX
R611
4.7K
R501
18K
R401
18K
R505
18K
R405
18K
R538
10K
R438
10K
C401
100P
C501
100P
C402
100P
C502
100P
L620
1μH
Q401
Q501
Q402
Q502
C402,C502 ..... for GN only
C401,C501,L620 ..... for GN only
R606
4.7K
Q603
C648
1000P
D646
MTZJ5R1BTA
AUX IN
Rch
Lch
JK601
R624
1K
CD_L
HALT
SYS6V
C633
0.01
R650
1K
R651
100
C634
10V220
D612
O
MAIN CIRCUIT


IC801
M38258M054FP
MICRO PROCESSOR
I CD OPERATION CIRCUIT
J TO VOLUME CIRCUIT (CW802)
M CASSETTE CIRCUIT
L CASSETTE EJECT CIRCUIT
K TUNER BAND CIRUIT
SW801 TUNER/BAND
CP802
CS800
PW800
W802
W803
SW816 POWER
SW817 AUTO OFF
SW818 CD_EDIT
SW819 R_SKIP
SW820 F_SKIP
SW821 CD_STOP
SW822 CD_PLY/II
SW823 CD_OPN/CLS
SW802 TUNING_MODE
SW803 MEMORY/SET
SW804 REC/R.PAUSE
SW805 TAPE_REW
SW806 TAPE_FF
SW807 AUX
SW808 TAPE_STOP
SW809 TAPE/PLAY
SW810 TAPE/EJECT
Q806 RVTDTC144EST RESET
R875 ..... for GN only
Q807
Q808
Q404.Q504 2SC1740SLNST BUFFER AMP
Q505 2SC1740SLNST FILTER AMP
Q406 2SC1740SRTA MUTING
Q506 2SC1740SRTA FILTER AMP
IC602 AN7135 POWER AMP
IC603 LA4705NA ANALOG SWITCH IC
Q617 RVTDTA114EST REGULATOR (PROTECTOR)
Q613 RVTDTA114YST SWITCHING
Q620 2SC1740SRTA SWITCHING
Q621 RVTDTA114EST POWER CONT.
Q618 RVTDTC114EST REGULATOR (PROTECTOR)
Q606 RVTDTA114EST SWITCHING (MUTE A)
Q614 RVTDTC114EST SWITCHING(PCNT)
Q507 2SC2001LTA MUTING DRIVE
Q693 2SD592ARTA REGULATOR
Q692 2SD592ARTA SWITCHING(DC 5.9V)
Q616 2SD592ARTA SWITCHING
Q615 2SD2037ETA SWITCHING (DC24V)
FP601
R431,432 ..... for G

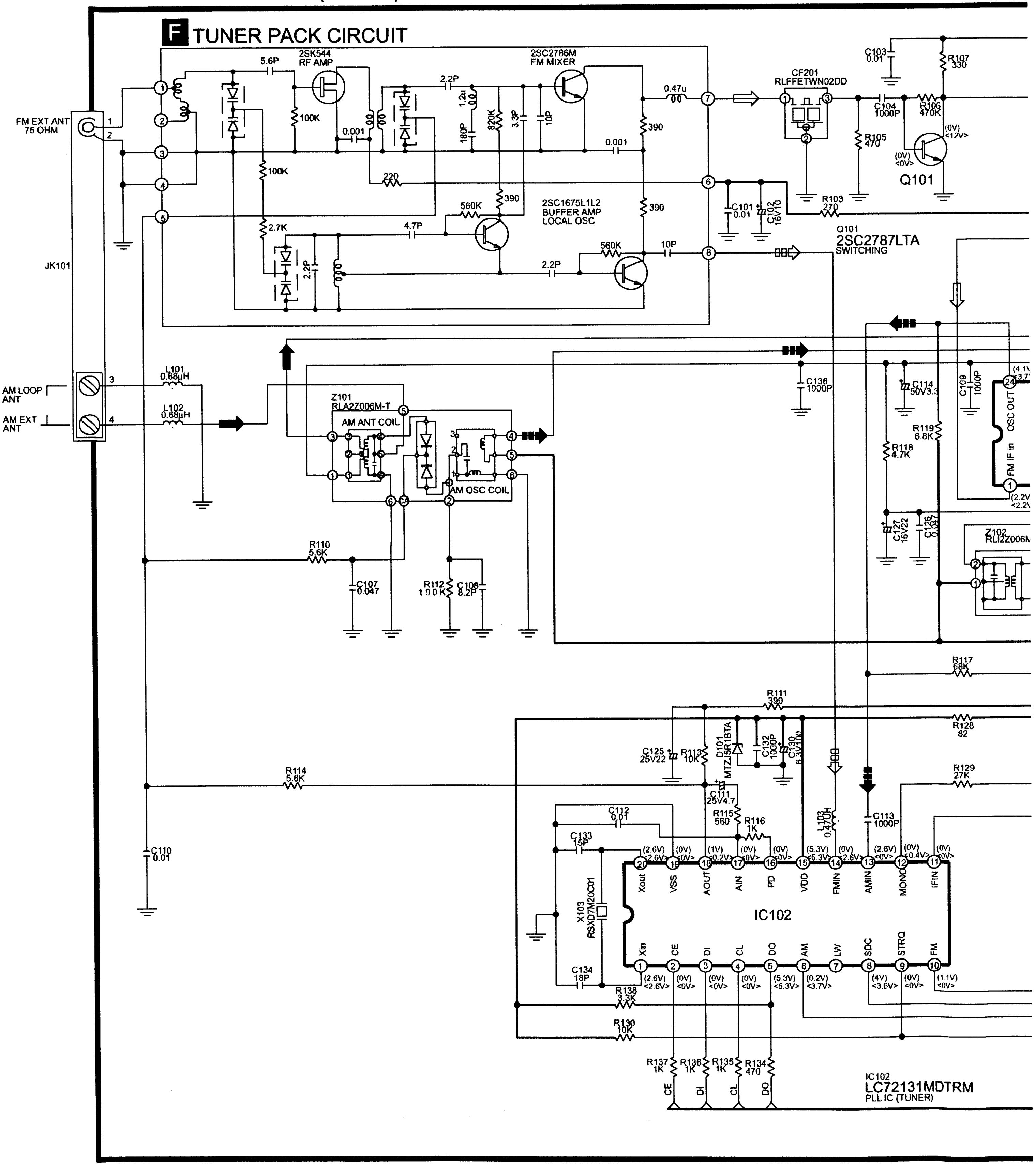

CD SERVO CIRCUIT (CN702) ON SCHEMATIC DIAGRAM-2
MLD
SENSE
FLOCK
TLOCK
BLKCK
CLDCK/SQCK
SUBQ
DMUTE/SBCK
STATUS
RST
SMCX(NC)/SUBC
REST SW
SQCK
STAT
CDRST
RESTSW
C838 1000P
R875 10K
ETTE CIRCUIT
R845 2.7K
R846 4.7K
R847 6.8K
R848 10K
SW804 REC/R.PAUSE
SW805 TAPE_REW
SW806 TAPE_FF
SW807 AUX
W803
R849 22K
R850 68K
SW808 TAPE_STOP
SW809 TAPE/PLAY
SW810 TAPE/EJECT
L CASSETTE EJECT CIRCUIT
CP790
CD_OPN
CDOPN_SW
CDCLS_SW
LO_8V
CD_CLS
SW791
SW790
IC790 TA7291S MOTOR DRIVE
RM790
C790 10V82
R607 22K
R673 10K
R672 10K
R608 22K
N LOADING MOTOR CIRCUIT
C428,429,528,529 ..... for GN only
C429 0.047
C529 0.047
JK604
L CH
R CH
MID/HIGH 6 ohm
IC602
7135
R/F&S.B.
I/PGND
O/PGND
VCC
C437 16V100
C424 470P
C524 470P
C537 16V100
C538 16V100
C525 16V470
C438 16V100
C425 16V470
R525 5.6K
C423 25V10
C523 25V10
Q621
C544 0.018
R544 8.2K
D627 RB441Q40T77
C818 25V330
C647 220P
R657 1.2K
R534 1.2
R535 1.0
C539 0.22
R434 1.2
R435 1.0
C439 0.22
JK603
C428 0.047
R426 82
C427 10V220
C528 0.047
R433 10
R526 82
C527 10V220
R533 10
TDTA114EST
ER CONT.
FP601
J VOLUME CIRCUIT
TO D CONTROL CIRCUIT (CP802) ON SCHEMATIC DIAGRAM-7
CW802
R852 1K
SW811 TU_DOWN
SW812 TU_UP
VR802 50K(B)
VR803 50K(B)
R838 47K
R839 47K
VR801 VOLUME
COM B A
C828 100P
C829 100P
JK602
WOOFER 8 ohm
L CH
R CH
POWER GND 1
INVERTING OUT 1
VCC 1
R431,432,531,532 ..... for GT only
C435,535 ..... for GN only
R431 82
R432 82
R532 82
R531 82
C435 0.047
C535 0.047
R530 2.2
C532 0.1
P POWER CIRCUIT
PW902
CS902
CONST.B
HALT
PWRCONT
SYS6V
R4 2.2
T2 RTP1I3E001-V ..... GN
T2 RTP1I3C001-V ..... GT
F1 250V T630mA ..... GN
F1 125V 1.25A .... GT
D1,D2,D3,D4 RL1N4003N02
C6 16V1000
C5 0.01
T2
F1
FH1 FH2
L1
JK1
AC IN
GN...230-240V (50HZ)
GT...110V (60HZ)
Z1
D5 RVD1SS133TA
RL1
R2 3.3K
R3 10K
Q1
2SC1740SRTA SWITCHING (PCNT)
T1
T1 RTP1M3B014-X ..... GN
T1 RTP1M3C017-X ..... GT
230V
240V
R5 2.2
PW901
CS901
C650 0.01
D616 RL1N4003N02
D901-904 1N5402BM21
D901 D902 D903 D904
C901 0.01
C902 0.01
C903 0.01
C904 0.01
C905 0.1
R644 8.2
C632 50V220
C631 50V220
C628 25V6800
R696 10K
D694 MTZJ5R1BTA
R695 2.2K
D693 RVD1SS133TA

SCHEMATIC DIAGRAM-5

—— : +B signal line ➡: AM signal line ⇨: FM/AM signal line

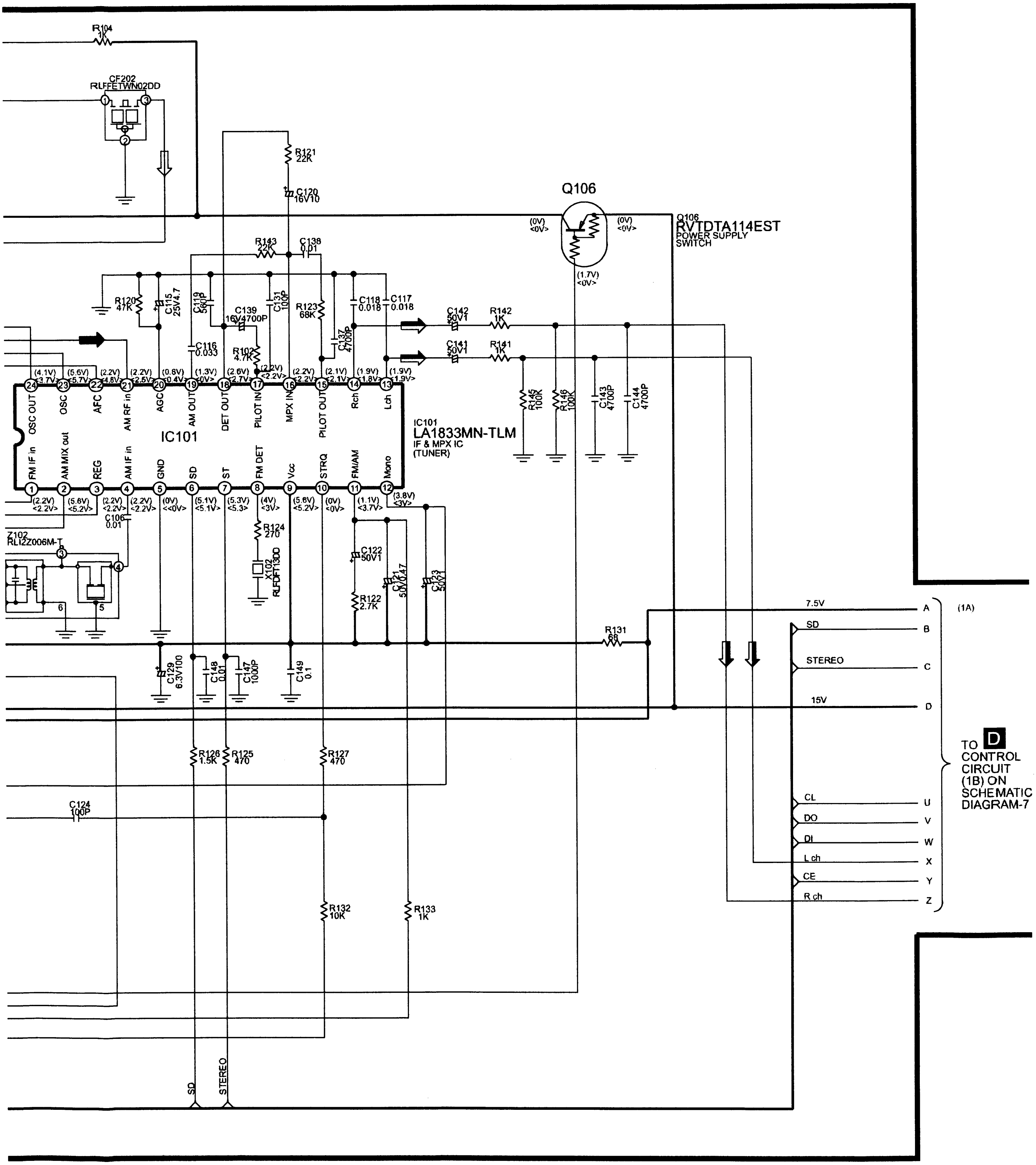
▯▯⇨ : FM OSC Signal line ⇨: FM signal line ■■➡ : AM OSC Signal line

D CONTROL CIRCUIT(TUNER)


F TUNER PACK CIRCUIT
FM EXT ANT 75 OHM
JK101
AM LOOP ANT
AM EXT ANT
2SK544 RF AMP
5.6P
100K
0.001
2.2P
1.2u
180P
820K
3.3P
10P
2SC2786M FM MIXER
390
0.001
0.47u
220
100K
2.7K
4.7P
560K
390
2SC1675L1L2 BUFFER AMP LOCAL OSC
390
560K
10P
2.2P
2.2P
CF201 RLFFETWN02DD
C103 0.01
R107 330
C104 1000P
R106 470K
R105 470
(0V) <12V>
(0V) <0V>
Q101
C101 0.01
C102 16V10
R103 270
Q101 2SC2787LTA SWITCHING
L101 0.68μH
L102 0.68μH
Z101 RLA2Z006M-T
AM ANT COIL
AM OSC COIL
R110 5.6K
C107 0.047
R112 100K
C108 8.2P
C136 1000P
C114 50V3.3
C109 1000P
R119 6.8K
R118 4.7K
(4.1V) <3.7V>
OSC OUT
FM IF in
(2.2V) <2.2V>
C127 16V22
C126 0.047
Z102 RLI2Z006M
R117 68K
R111 390
R128 82
C125 25V22
R113 10K
D101 MTZJ5R1BTA
C132 1000P
C130 6.3V100
R114 5.6K
C111 25V4.7
R129 27K
C112 0.01
R115 560
R116 1K
L103 0.47UH
C113 1000P
C133 15P
C110 0.01
X103 RSXD7M20C01
C134 18P
IC102
Xout VSS AOUT AIN PD VDD FMIN AMIN MONO IFIN
Xin CE DI CL DO AM LW SDC STRQ FM
(2.6V) <2.6V> (0V) <0V> (1V) <0.2V> (0V) <0V> (0V) <0V> (5.3V) <5.3V> (0V) <2.6V> (2.6V) <0V> (0V) <0.4V> (0V) <0V>
(2.6V) <2.6V> (0V) <0V> (0V) <0V> (0V) <0V> (5.3V) <5.3V> (0.2V) <3.7V> (4V) <3.6V> (0V) <0V> (1.1V) <0V>
R138 3.3K
R130 10K
R137 1K
R136 1K
R135 1K
R134 470
CE DI CL DO
IC102 LC72131MDTRM PLL IC (TUNER)

SCHEMATIC DIAGRAM-6

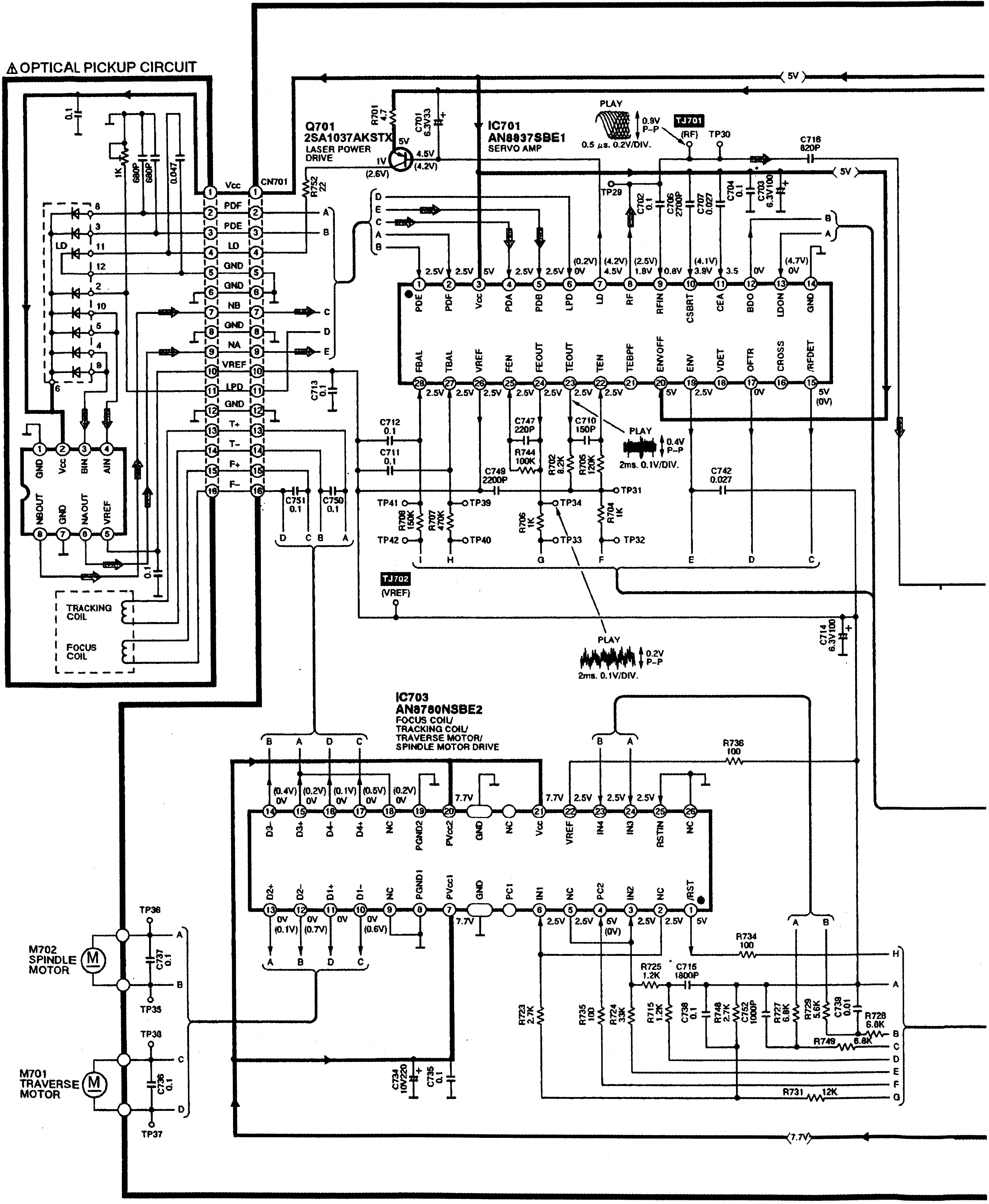
—— : +B signal line ➡: AM signal line ⇒: FM/AM signal line
⇨: FM signal line


R104 1K
CF202 RLFFETWN02DD
R121 22K
C120 16V10
Q106
Q106 RVTDTA114EST POWER SUPPLY SWITCH
(0V) <0V>
(1.7V) <0V>
R143 22K
C138 0.01
R120 47K
C115 25V4.7
C119 560P
C139 16V4700P
C131 100P
R123 68K
C118 0.018
C117 0.018
C116 0.033
R102 4.7K
C137 4700P
C142 50V1
R142 1K
C141 50V1
R141 1K
R145 100K
R146 100K
C143 4700P
C144 4700P
(4.1V) <3.7V>
(5.6V) <5.7V>
(2.2V) <4.8V>
(2.2V) <2.5V>
(0.6V) <0.4V>
(1.3V) <0V>
(2.6V) <2.7V>
(2.2V) <2.2V>
(2.2V) <2.2V>
(2.1V) <2.1V>
(1.9V) <1.8V>
(1.9V) <1.9V>
OSC OUT
OSC
AFC
AM RF in
AGC
AM OUT
DET OUT
PILOT IN
MPX IN
PILOT OUT
Rch
Lch
IC101
IC101 LA1833MN-TLM IF & MPX IC (TUNER)
FM IF in
AM MIX out
REG
AM IF in
GND
SD
ST
FM DET
Vcc
STRQ
FM/AM
Mono
(2.2V) <2.2V>
(5.6V) <5.2V>
(2.2V) <2.2V>
(2.2V) <2.2V>
(0V) <<0V>
(5.1V) <5.1V>
(5.3V) <5.3>
(4V) <3V>
(5.6V) <5.2V>
(0V) <0V>
(1.1V) <3.7V>
(3.8V) <3V>
C106 0.01
Z102 RLI2Z006M-T
R124 270
X102 RLDFT13DD
C122 50V1
C121 50V0.47
C123 50V1
R122 2.7K
R131 68
C129 6.3V100
C148 0.01
C147 1000P
C149 0.1
R126 1.5K
R125 470
R127 470
C124 100P
R132 10K
R133 1K
SD
STEREO
7.5V
SD
STEREO
15V
CL
DO
DI
L ch
CE
R ch
A
B
C
D
U
V
W
X
Y
Z
(1A)
TO D CONTROL CIRCUIT (1B) ON SCHEMATIC DIAGRAM-7

SCHEMATIC DIAGRAM-1

A CD SERVO CIRCUIT

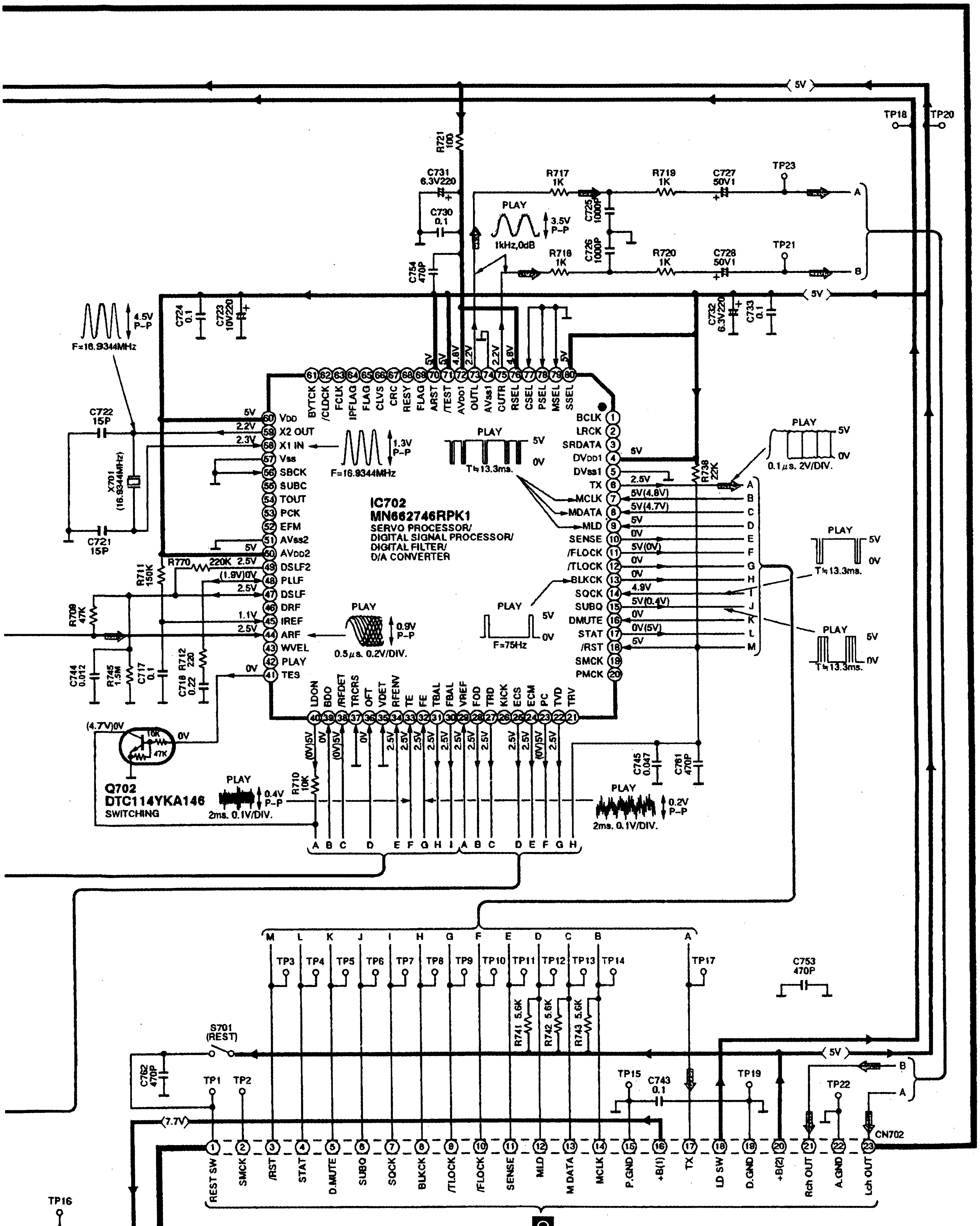
—— : +B signal line ⇨ : CD signal line



⚠ OPTICAL PICKUP CIRCUIT
CN701
Vcc
PDF
PDE
LD
GND
NB
NA
VREF
LPD
T+
T-
F+
F-
TRACKING COIL
FOCUS COIL
GND
Vcc
BIN
AIN
NBOUT
NAOUT
VREF
Q701
2SA1037AKSTX
LASER POWER DRIVE
R701 4.7
C701 6.3V33
R752 22
5V
4.5V
(4.2V)
1V
(2.6V)
IC701
AN8837SBE1
SERVO AMP
PLAY
0.9V P-P
0.5 µs. 0.2V/DIV.
TJ701
(RF)
TP30
TP29
C716 820P
5V
C702 0.1
C706 2700P
C707 0.027
C704 0.1
C703 6.3V100
PDE
PDF
Vcc
PDA
PDB
LPD
LD
RF
RFIN
CSBRT
CEA
BDO
LDON
GND
FBAL
TBAL
VREF
FEN
FEOUT
TEOUT
TEN
TEBPF
ENVOFF
ENV
VDET
OFTR
CROSS
/RFDET
C713 0.1
C712 0.1
C711 0.1
C747 220P
R744 100K
C710 150P
C749 2200P
R702 8.2K
R705 120K
PLAY
0.4V P-P
2ms. 0.1V/DIV.
C742 0.027
C751 0.1
C750 0.1
TP31
TP41
TP39
TP34
R708 150K
R707 470K
R706 1K
R704 1K
TP42
TP40
TP33
TP32
TJ702
(VREF)
C714 6.3V100
PLAY
0.2V P-P
2ms. 0.1V/DIV.
IC703
AN8780NSBE2
FOCUS COIL/ TRACKING COIL/ TRAVERSE MOTOR/ SPINDLE MOTOR DRIVE
R736 100
D3-
D3+
D4-
D4+
NC
PGND2
PVcc2
GND
NC
Vcc
VREF
IN4
IN3
RSTIN
NC
D2+
D2-
D1+
D1-
NC
PGND1
PVcc1
GND
PC1
IN1
NC
PC2
IN2
NC
/RST
7.7V
R734 100
R725 1.2K
C715 1800P
R723 2.7K
R735 100
R724 33K
R715 1.2K
C738 0.1
R748 2.7K
C752 1000P
R727 6.8K
R729 5.6K
C739 0.01
R728 6.8K
R749 6.8K
R731 12K
C734 10V220
C735 0.1
TP36
M702 SPINDLE MOTOR
C737 0.1
TP35
TP38
M701 TRAVERSE MOTOR
C736 0.1
TP37
7.7V

SCHEMATIC DIAGRAM-1

——: +B signal line ▨⇨ : CD signal line

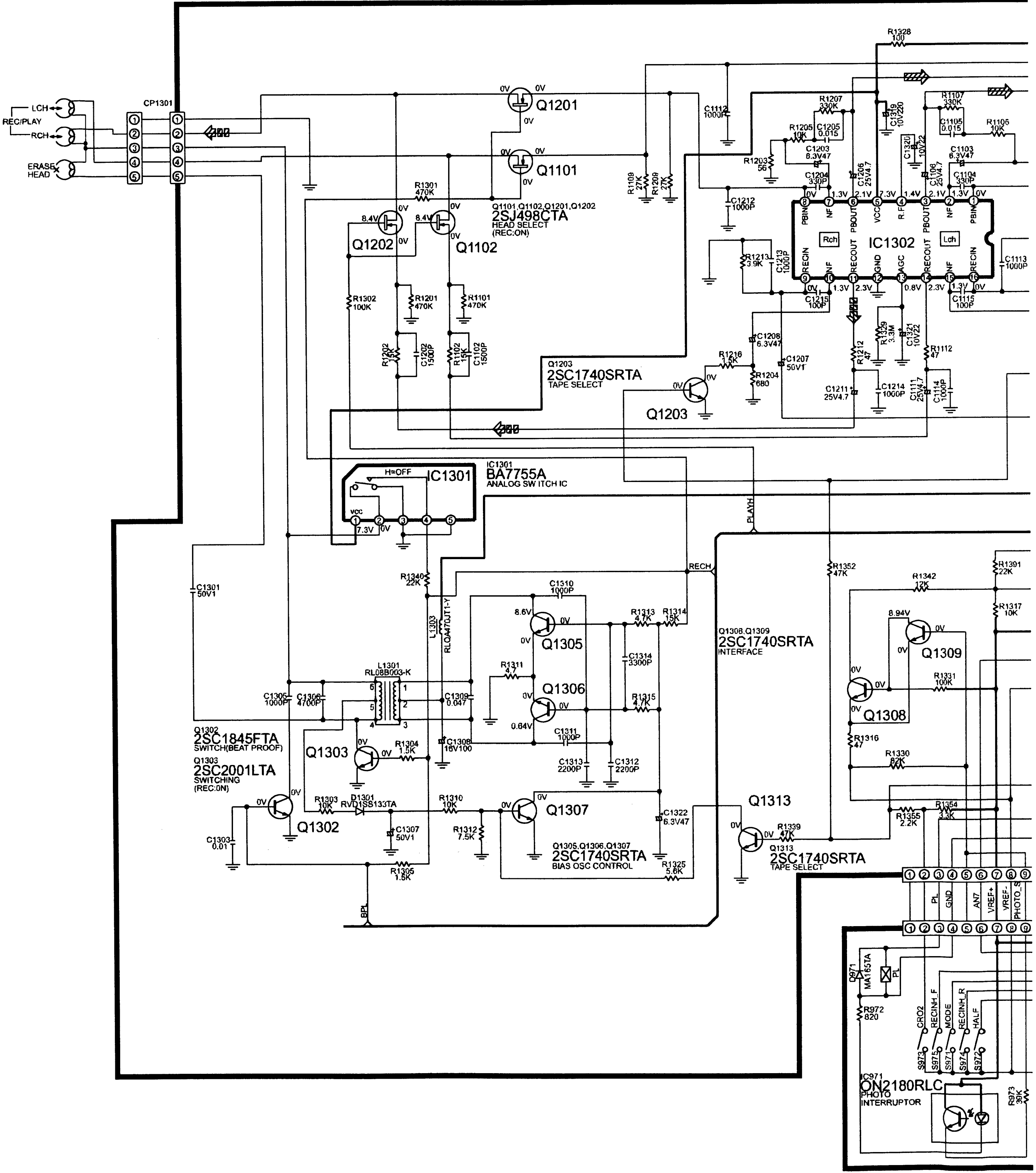

5V
TP18
TP20
R721 100
C731 6.3V220
C730 0.1
C754 470P
R717 1K
R719 1K
C727 50V1
TP23
C725 1000P
C726 1000P
PLAY
1kHz,0dB
3.5V P-P
R718 1K
R720 1K
C728 50V1
TP21
A
B
C724 0.1
C723 10V220
C732 6.3V220
C733 0.1
4.5V P-P
F=16.9344MHz
C722 15P
X701 (16.9344MHz)
C721 15P
1.3V P-P
F=16.9344MHz
PLAY
5V
0V
T≒13.3ms.
IC702
MN662746RPK1
SERVO PROCESSOR/
DIGITAL SIGNAL PROCESSOR/
DIGITAL FILTER/
D/A CONVERTER
61 BYTCK
62 /CLDCK
63 FCLK
64 IPFLAG
65 FLAG
66 CLVS
67 CRC
68 RESY
69 FLAG
70 ARST 5V
71 /TEST 5V
72 AVDD1 4.8V
73 OUTL 2.2V
74 AVss1
75 OUTR 2.2V
76 RSEL 4.8V
77 CSEL
78 PSEL
79 MSEL
80 SSEL 5V
60 VDD 5V
59 X2 OUT 2.2V
58 X1 IN 2.3V
57 Vss
56 SBCK
55 SUBC
54 TOUT
53 PCK
52 EFM
51 AVss2
50 AVDD2 5V
49 DSLF2 2.5V
48 PLLF (1.9V)0V
47 DSLF 2.5V
46 DRF
45 IREF 1.1V
44 ARF 2.5V
43 WVEL
42 PLAY
41 TES 0V
1 BCLK
2 LRCK
3 SRDATA
4 DVDD1 5V
5 DVss1
6 TX 2.5V
7 MCLK 5V(4.8V)
8 MDATA 5V(4.7V)
9 MLD 5V
10 SENSE 0V
11 /FLOCK 5V(0V)
12 /TLOCK 0V
13 BLKCK 0V
14 SQCK 4.9V
15 SUBQ 5V(0.4V)
16 DMUTE 0V
17 STAT 0V(5V)
18 /RST 5V
19 SMCK
20 PMCK
40 LDON (0V)5V
39 BDO 0V
38 /RFDET (0V)5V
37 TRCRS
36 OFT 0V
35 VDET
34 RFENV 2.5V
33 TE 2.5V
32 FE 2.5V
31 TBAL 2.5V
30 FBAL 2.5V
29 VREF 2.5V
28 FOD 2.5V
27 TRD 2.5V
26 KICK
25 ECS 2.5V
24 ECM 2.5V
23 PC (0V)5V
22 TVD 2.5V
21 TRV
R738 22K
PLAY
5V
0V
0.1µs. 2V/DIV.
PLAY
5V
0V
T≒13.3ms.
PLAY
5V
0V
T≒13.3ms.
A B C D E F G H I J K L M
R770 220K
R711 150K
R709 47K
C744 0.012
R745 1.5M
C717 0.1
C718 0.22
R712 220
PLAY
0.9V P-P
0.5µs. 0.2V/DIV.
PLAY
5V
0V
F=75Hz
(4.7V)0V
10K
47K
0V
Q702
DTC114YKA146
SWITCHING
PLAY
0.4V P-P
2ms. 0.1V/DIV.
R710 10K
PLAY
0.2V P-P
2ms. 0.1V/DIV.
C745 0.047
C761 470P
A B C D E F G H I A B C D E F G H
M L K J I H G F E D C B A
TP3 TP4 TP5 TP6 TP7 TP8 TP9 TP10 TP11 TP12 TP13 TP14 TP17
C753 470P
R741 5.6K
R742 5.6K
R743 5.6K
S701 (REST)
C762 470P
TP1 TP2
TP15
C743 0.1
TP19
TP22
5V
B
A
(7.7V)
CN702
1 REST SW
2 SMCK
3 /RST
4 STAT
5 D.MUTE
6 SUBQ
7 SQCK
8 BLKCK
9 /TLOCK
10 /FLOCK
11 SENSE
12 MLD
13 M DATA
14 MCLK
15 P.GND
16 +B(1)
17 TX
18 LD SW
19 D.GND
20 +B(2)
21 Rch OUT
22 A.GND
23 Lch OUT
TP16

TO **O**
MAIN CIRCUIT
(CS702) ON
SCHEMATIC
DIAGRAM-7

SCHEMATIC DIAGRAM-3

——— : +B signal line ▨ : Playback signal line ▨ : Record signal line

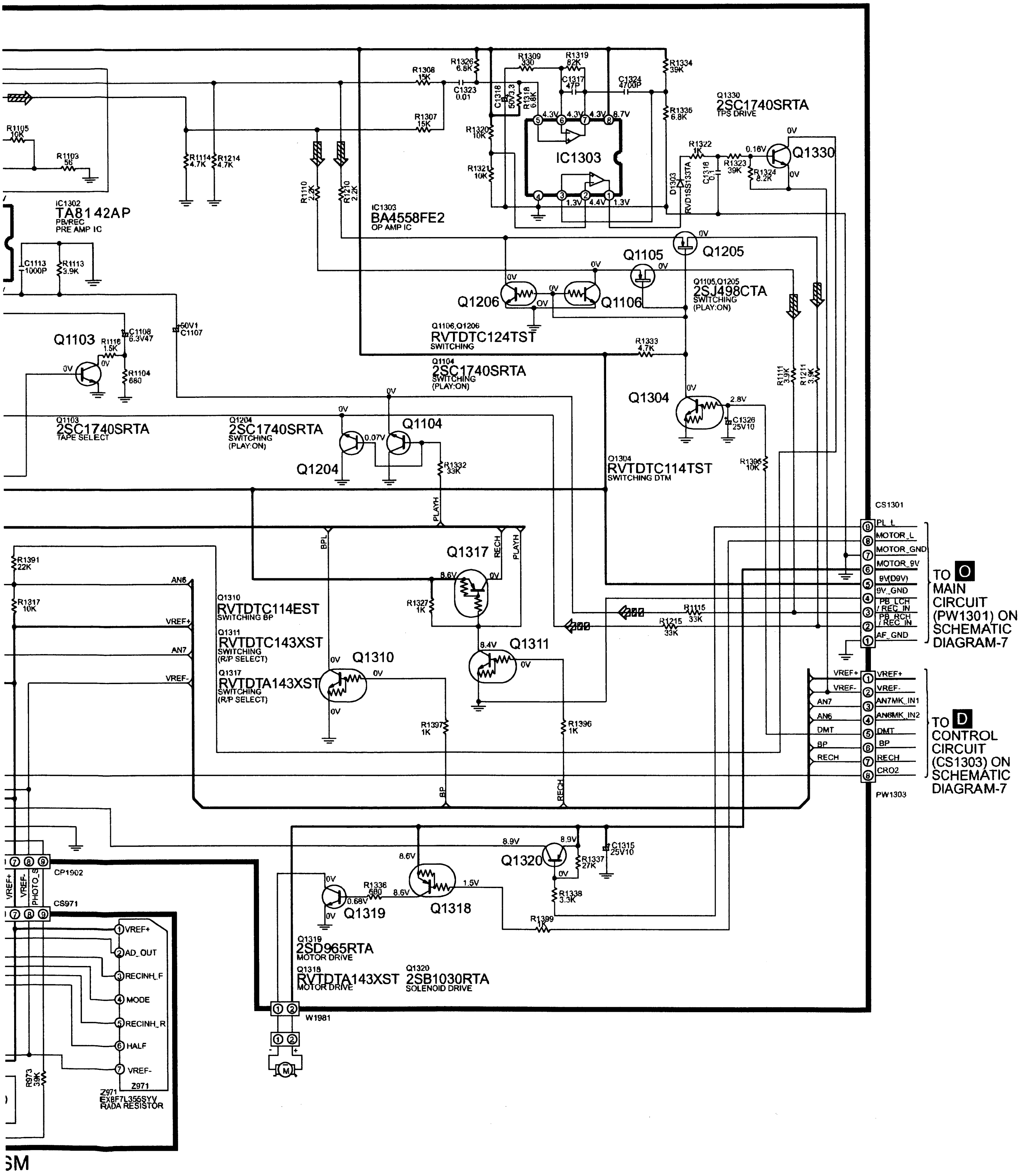
B CASSETTE DECK CIRCUIT


LCH
REC/PLAY
RCH
ERASE HEAD
CP1301
Q1201
Q1101
Q1202
Q1102
R1301 470K
Q1101,Q1102,Q1201,Q1202
2SJ498CTA
HEAD SELECT (REC:ON)
R1302 100K
R1201 470K
R1101 470K
R1202 15K
C1202 1500P
R1102 15K
C1102 1500P
R1109 27K
R1209 27K
C1112 1000P
C1212 1000P
R1328 100
R1207 330K
R1205 10K
C1205 0.015
C1203 6.3V47
R1203 56
C1204 330P
C1206 25V4.7
C1319 10V220
C1320 10V22
R1107 330K
C1105 0.015
R1105 10K
C1103 6.3V47
C1106 25V4.7
C1104 330P
PBIN
NF
PBOUT
VCC
R.F
RECIN
RECOUT
GND
AGC
Rch
Lch
IC1302
C1113 1000P
R1213 3.9K
C1213 1000P
C1215 100P
C1115 100P
R1329 3.3M
C1321 10V22
C1208 6.3V47
C1207 50V1
R1216 1.5K
R1204 680
R1212 47
R1112 47
C1211 25V4.7
C1214 1000P
C1111 25V4.7
C1114 1000P
Q1203
2SC1740SRTA
TAPE SELECT
IC1301
BA7755A
ANALOG SW ITCH IC
H=OFF
VCC
PLAYH
RECH
R1340 22K
L1303 RLOA470JT1-Y
C1310 1000P
Q1305
Q1306
R1311 4.7
R1313 4.7K
R1314 15K
C1314 3300P
R1315 4.7K
C1311 1000P
C1313 2200P
C1312 2200P
L1301 RL08B003-K
C1305 1000P
C1306 4700P
C1309 0.047
C1308 16V100
C1301 50V1
Q1302
2SC1845FTA
SWITCH(BEAT PROOF)
Q1303
2SC2001LTA
SWITCHING (REC:ON)
R1304 1.5K
R1303 10K
D1301 RVD1SS133TA
C1307 50V1
R1310 10K
R1312 7.5K
Q1307
C1322 6.3V47
Q1305,Q1306,Q1307
2SC1740SRTA
BIAS OSC CONTROL
R1325 5.6K
C1303 0.01
R1305 1.5K
BPL
Q1308,Q1309
2SC1740SRTA
INTERFACE
R1352 47K
Q1313
R1339 47K
Q1313
2SC1740SRTA
TAPE SELECT
R1342 12K
R1391 22K
R1317 10K
Q1309
R1331 100K
Q1308
R1316 47
R1330 82K
R1355 2.2K
R1354 3.3K
PL
GND
AN7
VREF+
VREF-
PHOTO_S
D971 MA165TA
R972 820
CRO2
RECINH_F
MODE
RECINH_R
HALF
S973
S975
S971
S974
S972
IC971
ON2180RLC
PHOTO INTERRUPTOR
R973 30K

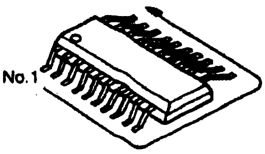
C MECHANISM CIRCUIT

SCHEMATIC DIAGRAM-4

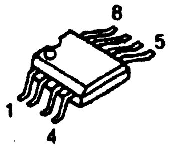
—— : +B signal line ▨⇨ : Playback signal line ⇨ : Record signal line


R1105 10K
R1103 56
IC1302 TA8142AP PB/REC PRE AMP IC
C1113 1000P
R1113 3.9K
R1114 4.7K
R1214 4.7K
R1110 2.2K
R1210 2.2K
R1308 15K
R1307 15K
R1326 6.8K
C1323 0.01
C1318 50V3.3
R1318 6.8K
R1309 330
R1319 82K
C1317 47P
C1324 4700P
R1320 10K
R1321 10K
IC1303
IC1303 BA4558FE2 OP AMP IC
4.3V 4.3V 4.3V 8.7V 1.3V 4.4V 1.3V
R1334 39K
R1336 6.8K
Q1330 2SC1740SRTA TPS DRIVE
R1322 1K
R1323 39K
R1324 8.2K
C1316 0.1
D1303 RVD1SS133TA
0.16V
Q1330
Q1105
Q1205
Q1206
Q1106
Q1105,Q1205 2SJ498CTA SWITCHING (PLAY:ON)
Q1106,Q1206 RVTDTC124TST SWITCHING
Q1104 2SC1740SRTA SWITCHING (PLAY:ON)
R1333 4.7K
Q1103
R1116 1.5K
C1108 6.3V47
C1107 50V1
R1104 680
Q1103 2SC1740SRTA TAPE SELECT
Q1204 2SC1740SRTA SWITCHING (PLAY:ON)
Q1104
Q1204
0.07V
R1332 33K
Q1304
2.8V
C1326 25V10
Q1304 RVTDTC114TST SWITCHING DTM
R1111 3.9K
R1211 3.9K
R1395 10K
PLAYH
BPL
RECH
PLAYH
Q1317
8.6V
R1327 1K
R1391 22K
R1317 10K
AN6
VREF+
AN7
VREF-
Q1310 RVTDTC114EST SWITCHING BP
Q1311 RVTDTC143XST SWITCHING (R/P SELECT)
Q1317 RVTDTA143XST SWITCHING (R/P SELECT)
Q1310
Q1311
8.4V
R1397 1K
R1396 1K
BP
RECH
R1115 33K
R1215 33K
CS1301
⑨ PL_L
⑧ MOTOR_L
⑦ MOTOR_GND
⑥ MOTOR_9V
⑤ 9V(D9V)
④ 9V_GND
③ PB_LCH / REC_IN
② PB_RCH / REC_IN
① AF_GND
TO O MAIN CIRCUIT (PW1301) ON SCHEMATIC DIAGRAM-7
VREF+ ① VREF+
VREF- ② VREF-
AN7 ③ AN7MK_IN1
AN6 ④ AN6MK_IN2
DMT ⑤ DMT
BP ⑥ BP
RECH ⑦ RECH
⑧ CRO2
PW1303
TO D CONTROL CIRCUIT (CS1303) ON SCHEMATIC DIAGRAM-7
8.9V 8.9V
C1315 25V10
Q1320
R1337 27K
R1338 3.3K
R1399 1K
8.6V
R1336 680
0.68V
1.5V
Q1319
Q1318
Q1319 2SD965RTA MOTOR DRIVE
Q1318 RVTDTA143XST MOTOR DRIVE
Q1320 2SB1030RTA SOLENOID DRIVE
W1981
M
CP1902
VREF+ VREF- PHOTO_S
CS971
① VREF+
② AD_OUT
③ RECINH_F
④ MODE
⑤ RECINH_R
⑥ HALF
⑦ VREF-
Z971
R973 39K
Z971 EXBF7L355SYV RADA RESISTOR
SM

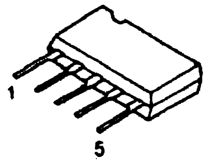
AN8837SBE1 (28P)
BH3857AFV-E2 (40P)
LC72131MDTRM (20P)
LA1833MN-TLM (24P)



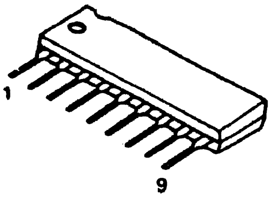
BA4558FE2



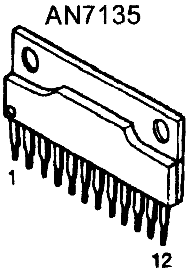
BA7755A



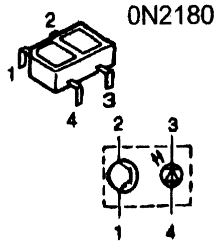
BA6283N



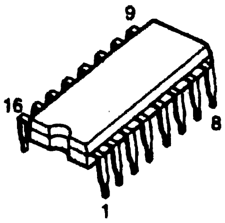
AN7135



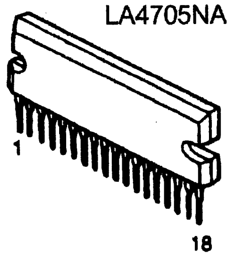
0N2180RLC



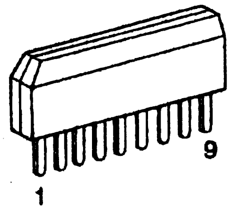
TA8142AP



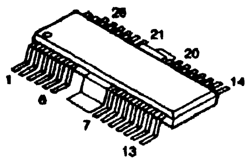
LA4705NA



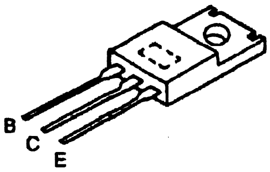
TA7291S



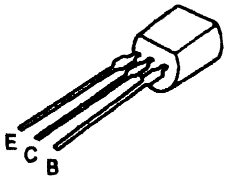
AN8780NSBE2


28
21
20
14
1
8
7
13

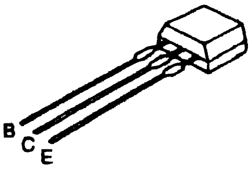
2SB1566E



2SA952LTA
2SC1845FTA
2SC2001LTA
2SD965RTA
2SD592ARTA
2SC2001KTA

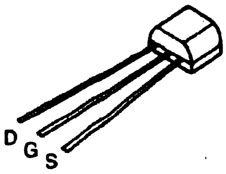


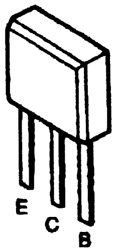
2SC1740SLNST
2SC1740SRTA
RVTDTA114EST



RVTDTA114YST
RVTDTA143TST
RVTDTA143XST
RVTDTC114EST
RVTDTC114TST
RVTDTC124TST
RVTDTC143XST
RVTDTC144EST
2SC2786MTA
2SC2787FLITA

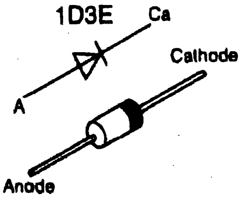
2SJ498CTA



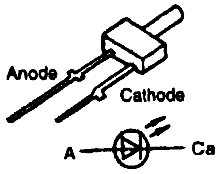


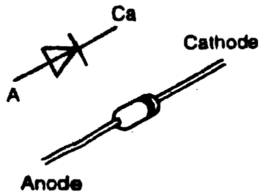
2SB1030RTA
2SC2787LTA
2SA1309AQSTA

1N5402BM21
RL1N4003N02
1D3E

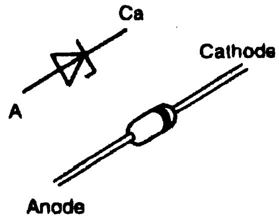

Ca
Cathode
A
Anode

LN282RPXTA


Anode
Cathode
A
Ca

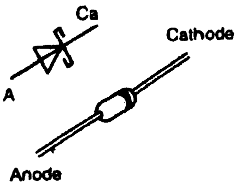

Ca
Cathode
A
Anode

1SS291TA
MA165TA
RVD1SS133TA

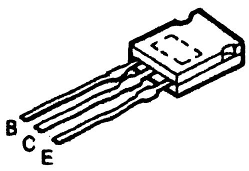

Ca
Cathode
A
Anode

MTZJ5R1BTA
MTZJ5R6CTA
MTZJ5R6ATA
MTZJ8R2BTA
MTZJ9R1ATA
MTZJ15CTA
MTZJ24DTA
MTZJ7R5BTA

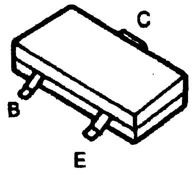
RB441Q40T77


Ca
Cathode
A
Anode

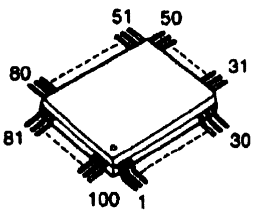
2SD2037ETA



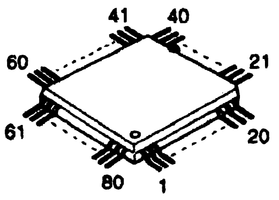
2SA1037AKSTX
DTC114YKA146



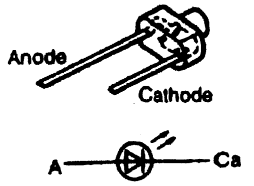
M38258M054FP


51
50
80
31
81
30
100
1

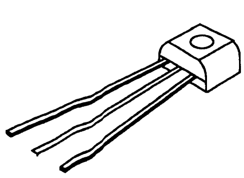
MN662746RPK1


41
40
60
21
61
20
80
1

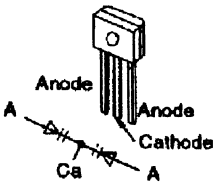
SLR325MCT31


Anode
Cathode
A
Ca

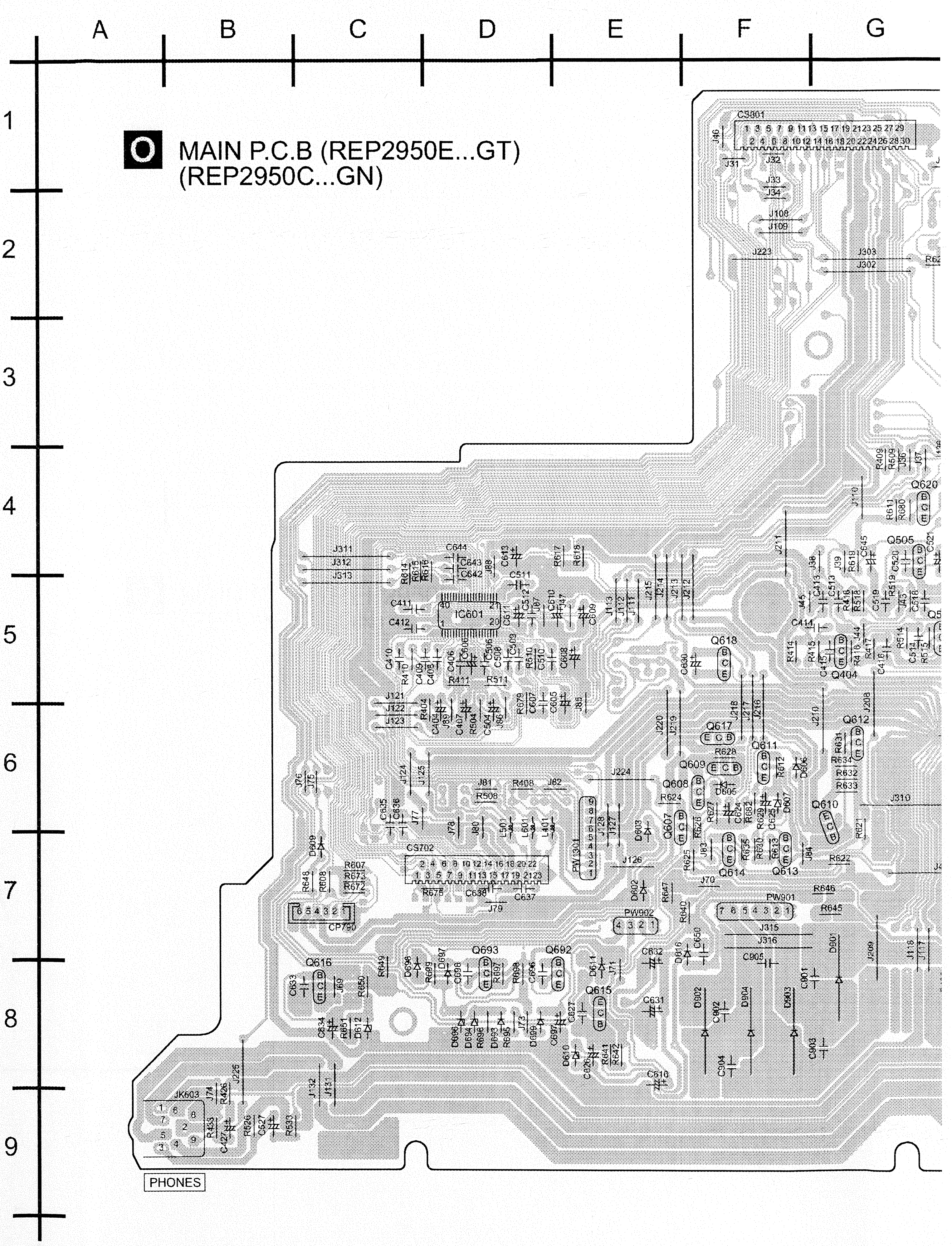
2SK544F-AC



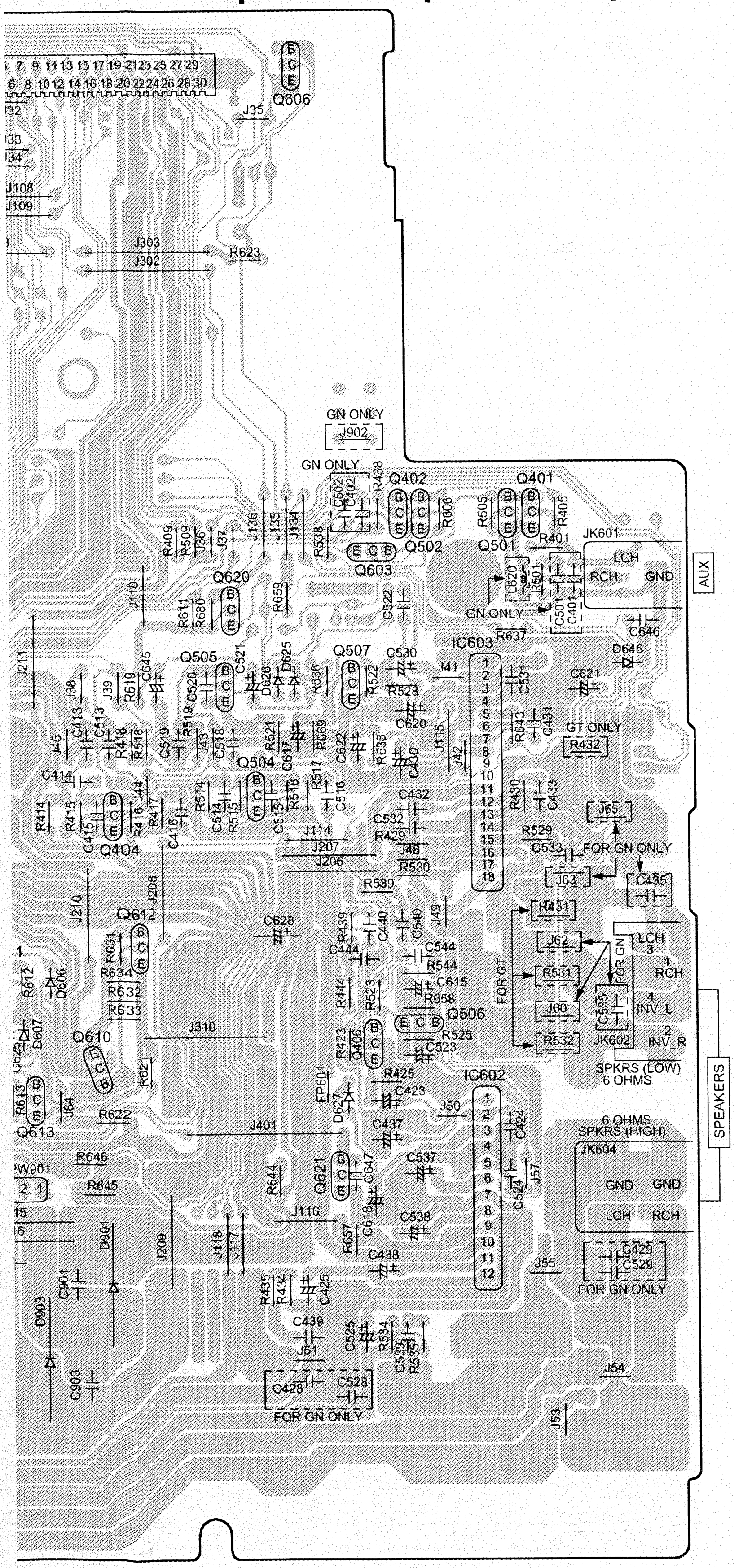
2VC211SPA-AL


Anode
A
Anode
Cathode
Ca
A

O MAIN P.C.B (REP2950E...GT)
(REP2950C...GN)

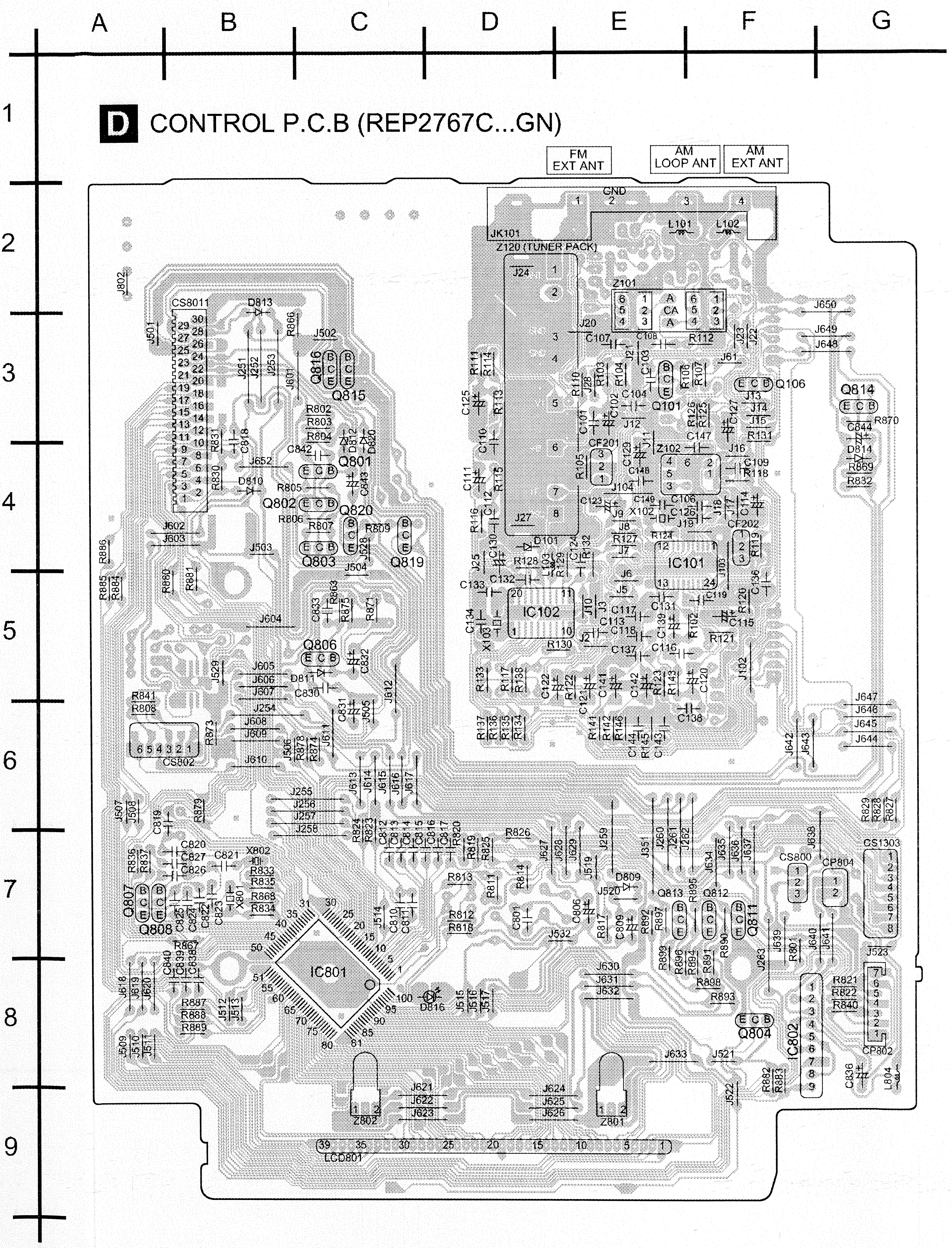

A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
CS801
J46
J31
J32
J33
J34
J108
J109
J223
J303
J302
J311
J312
J313
C644
C643
C642
R614
R615
R616
J88
C613
R617
R618
C511
IC601
C411
C412
C410
R410
C409
C408
C406
C606
C506
C508
C509
R510
C510
C608
R411
R511
J121
J122
J123
R404
C404
J89
C407
R604
C504
J86
R679
C607
C605
J85
J113
J112
J111
J215
J214
J213
J212
J211
J110
R409
R509
J36
J37
Q620
R611
R680
C645
Q505
J38
J39
R619
C520
C521
J45
C413
C513
R418
R518
C519
R519
J43
C518
C414
Q618
C630
R414
R415
C415
R416
J44
R417
R514
C514
C416
Q404
J220
J219
J218
J217
J216
J210
J208
Q617
R628
Q611
Q612
R631
R634
R632
R633
Q609
R612
D606
J224
Q608
D605
R624
Q607
R626
R627
C624
R682
R629
C625
D607
Q610
J310
J76
J75
J124
J125
J81
R408
J82
R508
C635
C636
J77
J78
J80
L501
L601
L401
PW1301
J128
J127
D603
R625
J83
R635
R630
R613
J84
R621
D609
R607
R673
R672
R648
R608
CS702
R675
C638
C637
J79
J126
Q614
Q613
R622
D602
R647
J70
PW901
R646
R645
CP790
PW902
R640
J315
J316
Q616
C633
J69
R650
R649
D698
R699
D697
C698
Q693
R697
R698
C696
Q692
D611
J71
C632
D616
C650
C905
D901
J209
J118
J117
Q615
C901
D902
C902
D904
D903
C634
R651
D612
D696
D694
R696
D693
R695
J73
D699
C697
C627
C631
D610
C626
R641
R642
C610
C904
C903
JK603
J74
R426
J226
J132
J131
R433
C427
R526
C527
R533
PHONES

G H I J K L M

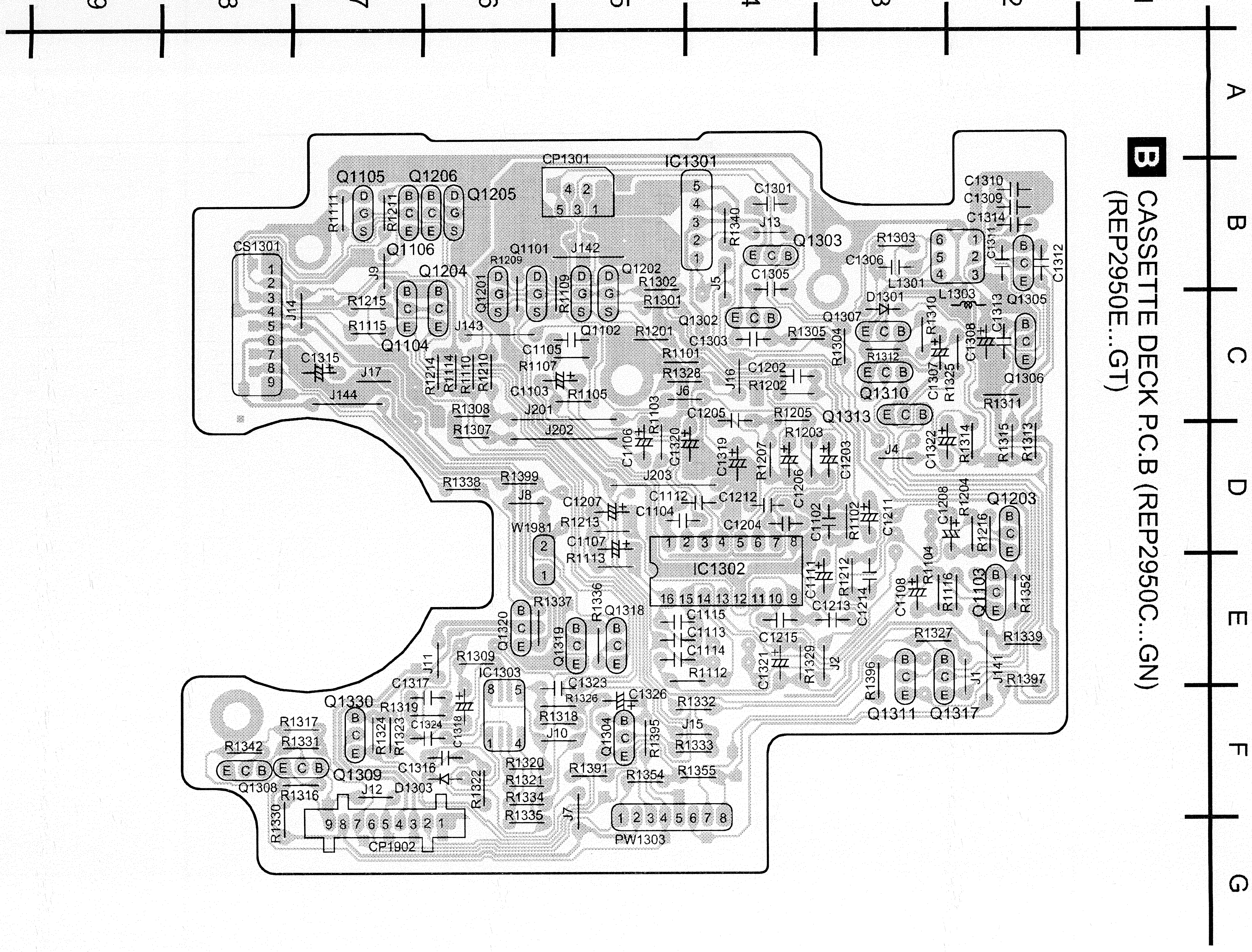

Q606
J35
J303
J302
R623
GN ONLY
J902
Q402
Q401
Q502
Q501
Q603
Q620
JK601
LCH
RCH
GND
AUX
GN ONLY
IC603
Q505
Q507
Q504
GT ONLY
R432
Q404
J65
FOR GN ONLY
Q612
Q506
Q610
Q406
J310
FOR GT
FOR GN
JK602
INV_L
INV_R
SPKRS (LOW)
6 OHMS
SPEAKERS
IC602
Q613
J401
6 OHMS
SPKRS (HIGH)
JK604
Q621
FOR GN ONLY
FOR GN ONLY

Ref. No.	Loc. No.
D602	E7
D603	E7
D605	F6
D606	F6
D607	F6
D609	B7
D610	E8
D611	E8
D612	C8
D616	E7
D625	H4
D626	H4
D627	H7
D646	I4
D693	D8
D694	D8
D696	D8
D697	D8
D698	C8
D699	D8
D901	F8
D902	E8
D903	F8
D904	F8
IC601	D5
IC602	I7
IC603	I5
JK601	I4
JK602	I6
JK603	B9
JK604	I7
Q401	I4
Q402	H4
Q404	G5
Q406	H6
Q501	I4
Q502	H4
Q504	G5
Q505	G4
Q506	H6
Q507	H4
Q603	H4
Q606	H1
Q607	E6
Q608	F6
Q609	F6
Q610	F6
Q611	F6
Q612	G6
Q613	F7
Q614	F7
Q615	E8
Q616	C8
Q617	F6
Q618	F5
Q620	G4
Q621	H7
Q692	D8
Q693	D8
CP790	C7
CS702	D7
CS801	F1

D CONTROL P.C.B (REP2767C...GN)


A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
FM EXT ANT
AM LOOP ANT
AM EXT ANT
GND
JK101
Z120 (TUNER PACK)
L101
L102
Z101
CS8011
D813
J501
J802
J502
Q816
Q815
Q801
Q802
Q803
Q820
Q819
Q806
CS802
IC102
IC101
Q101
Q106
Q814
IC801
D816
Q807
Q808
X801
X802
Q813
Q812
Q811
Q804
IC802
CS800
CP804
CS1303
CP802
Z802
Z801
LCD801
L804

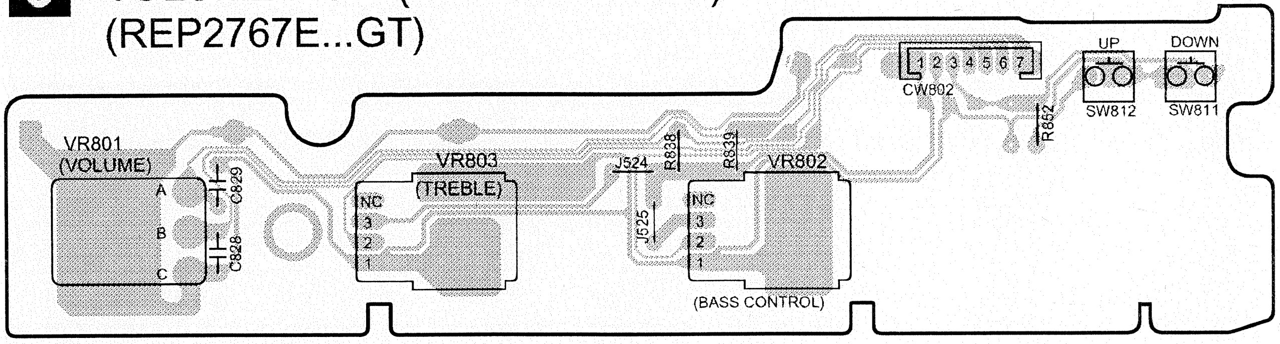
B CASSETTE DECK P.C.B (REP2950C...GN) (REP2950E...GT)


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
CP1301
IC1301
Q1105
Q1206
Q1205
Q1106
Q1204
Q1104
Q1101
Q1201
Q1102
Q1202
Q1302
Q1303
Q1305
Q1306
Q1307
Q1310
Q1313
Q1203
Q1103
Q1311
Q1317
Q1318
Q1319
Q1320
Q1304
Q1330
Q1309
Q1308
CS1301
IC1302
IC1303
CP1902
PW1303
W1981
D1301
D1303
L1301
L1303
J4
J5
J6
J7
J8
J9
J10
J11
J12
J13
J14
J15
J16
J17
J141
J142
J143
J144
J201
J202
J203
J1
J2
R1111
R1211
R1209
R1215
R1115
R1214
R1114
R1110
R1210
R1109
R1302
R1301
R1201
R1101
R1328
R1202
R1107
R1105
R1103
R1308
R1307
R1338
R1399
R1213
R1113
R1340
R1303
R1304
R1305
R1310
R1312
R1325
R1311
R1314
R1315
R1313
R1205
R1203
R1207
R1102
R1204
R1216
R1104
R1116
R1352
R1212
R1327
R1339
R1396
R1397
R1329
R1337
R1336
R1309
R1319
R1324
R1323
R1317
R1331
R1342
R1316
R1330
R1322
R1326
R1318
R1320
R1321
R1334
R1335
R1391
R1354
R1355
R1332
R1333
R1395
R1112
C1310
C1309
C1314
C1311
C1312
C1313
C1301
C1305
C1306
C1303
C1308
C1307
C1322
C1315
C1105
C1103
C1106
C1320
C1319
C1205
C1202
C1203
C1206
C1207
C1112
C1212
C1104
C1204
C1102
C1211
C1208
C1107
C1111
C1213
C1214
C1108
C1215
C1115
C1113
C1114
C1321
C1317
C1318
C1324
C1316
C1323
C1326
E C B
B C E
D G S

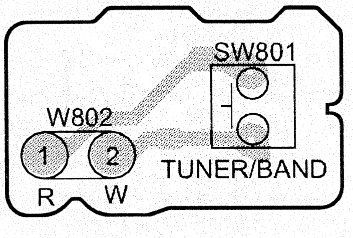
A B C D E F G

1 2 3 4 5 6 7 8 9

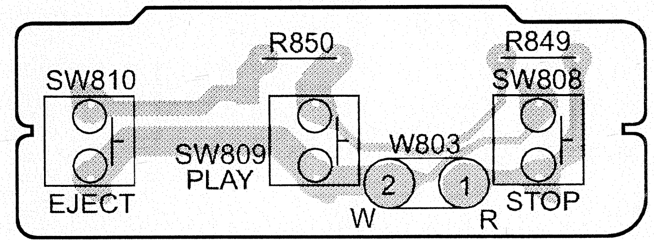
J VOLUME P.C.B (REP2767C...GN) (REP2767E...GT)


VR801
(VOLUME)
A
B
C
C829
C828
VR803
(TREBLE)
NC
3
2
1
J524
J525
R838
R839
VR802
NC
3
2
1
(BASS CONTROL)
1 2 3 4 5 6 7
CW802
R852
UP
SW812
DOWN
SW811

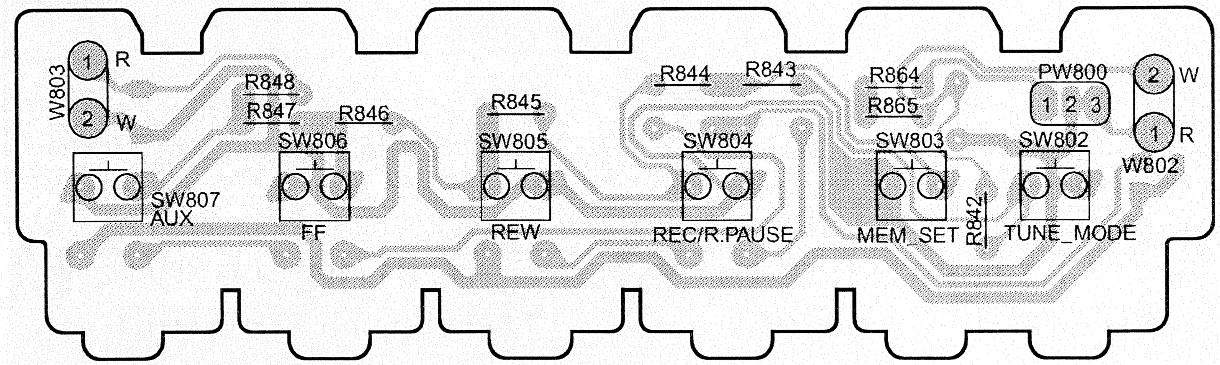
K TUNER BAND P.C.B (REP2767C/E...GN/GT)


SW801
W802
1
2
R
W
TUNER/BAND

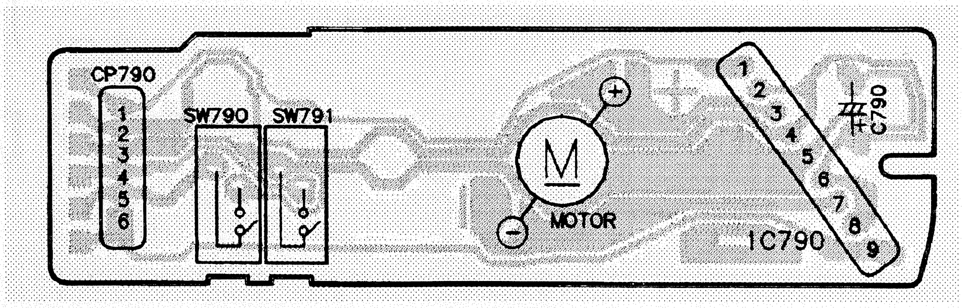
L CASSETTE EJECT P.C.B (REP2767C/E...GN/GT)


R850
R849
SW810
SW808
SW809
PLAY
W803
2
1
EJECT
W
R
STOP

M CASSETTE P.C.B (REP2767C/E...GN/GT)


W803
1
R
2
W
R848
R847
R846
R845
R844
R843
R864
R865
PW800
1 2 3
2
W
1
R
W802
SW807
AUX
SW806
FF
SW805
REW
SW804
REC/R.PAUSE
SW803
MEM_SET
R842
SW802
TUNE_MODE

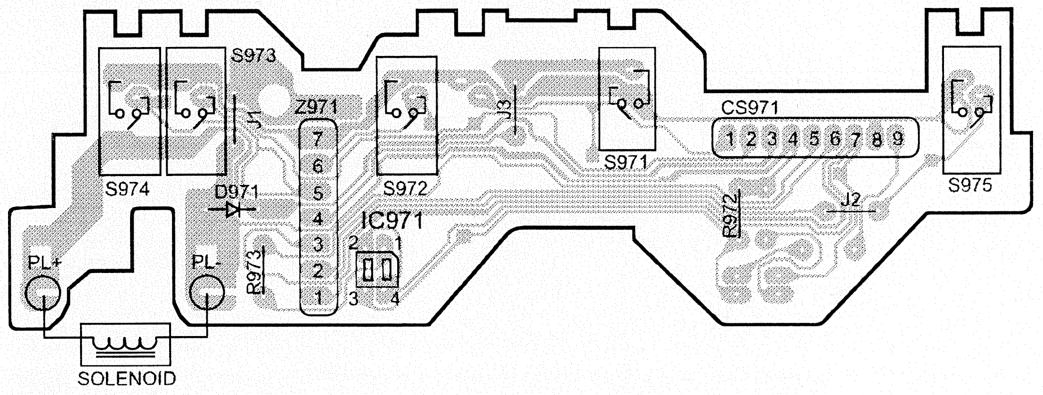
N LOADING MOTOR P.C.B (REP1960A)


CP790
1
2
3
4
5
6
SW790
SW791
M
MOTOR
+
−
1
2
3
4
5
6
7
8
9
IC790
C790

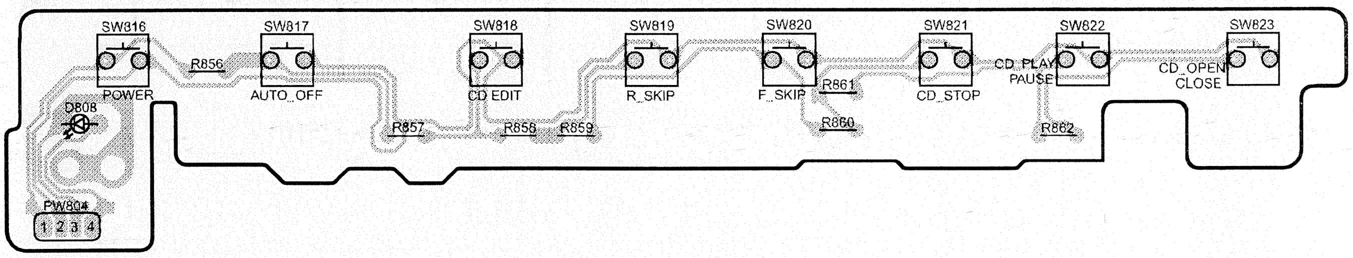
A B C D E F G

1 2 3 4 5 6 7 8 9

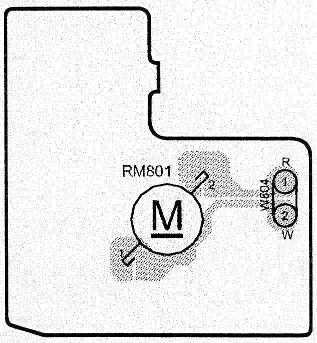
C MECHANISM P.C.B (REPX0108)


S973
S974
S972
S971
S975
Z971
7 6 5 4 3 2 1
J1
J3
J2
CS971
1 2 3 4 5 6 7 8 9
D971
IC971
2 1 3 4
R973
R972
PL+
PL-
SOLENOID

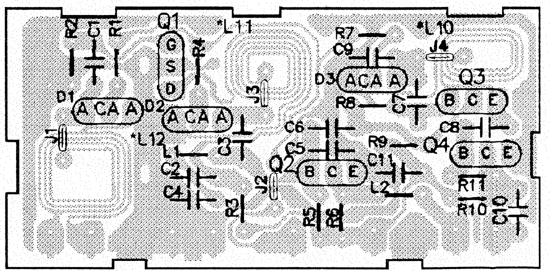
I CD OPERATION P.C.B (REP2950C...GN) (REP2950E...GT)


SW816
POWER
SW817
AUTO_OFF
SW818
CD EDIT
SW819
R_SKIP
SW820
F_SKIP
SW821
CD_STOP
SW822
CD_PLAY PAUSE
SW823
CD_OPEN CLOSE
R856
R857
R858
R859
R860
R861
R862
D808
PW804
1 2 3 4

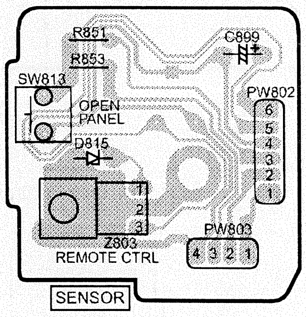
E MOTOR P.C.B (REP2767C...GN) (REP2767E...GT)


RM801
M
2
W804
R
1
2
W

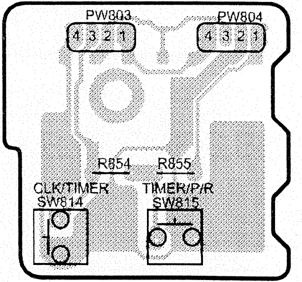
F TUNER PACK P.C.B (REP1999B)


R2
C1
R1
Q1
G S D
R4
*L11
R7
C9
*L10
J4
D3
ACA A
Q3
B C E
R8
C7
D1
A CA A
D2
A CA A
J3
J1
*L12
L1
C3
C6
C5
R9
Q4
C8
B C E
C2
C4
R3
J2
Q2
B C E
C11
L2
R11
R10
C10
R5
R6

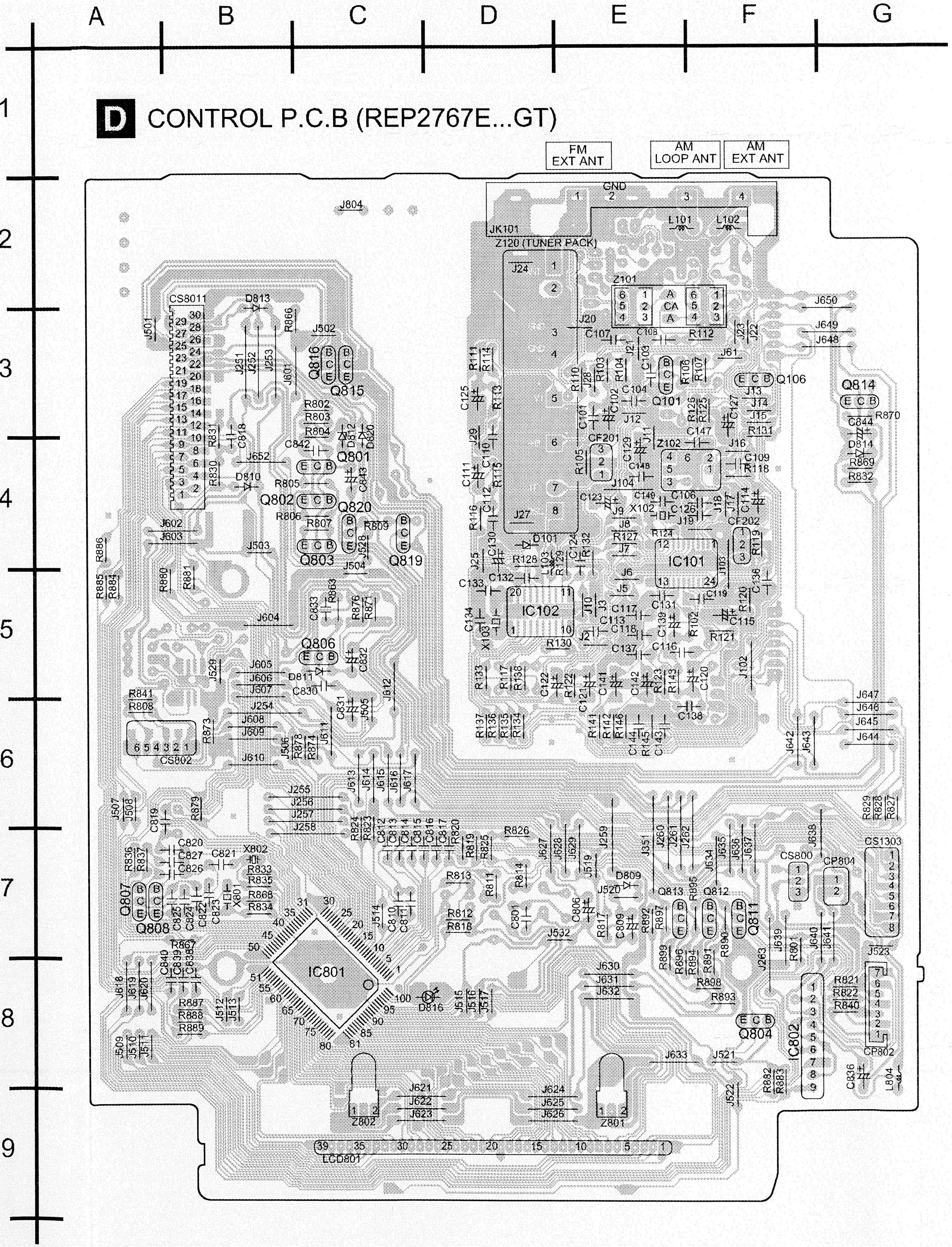
G SENSOR P.C.B (REP2950C...GN) (REP2950E...GT)


R851
R853
C899
SW813
OPEN PANEL
D815
PW802
6 5 4 3 2 1
1 2 3
Z803
REMOTE CTRL
PW803
4 3 2 1
SENSOR

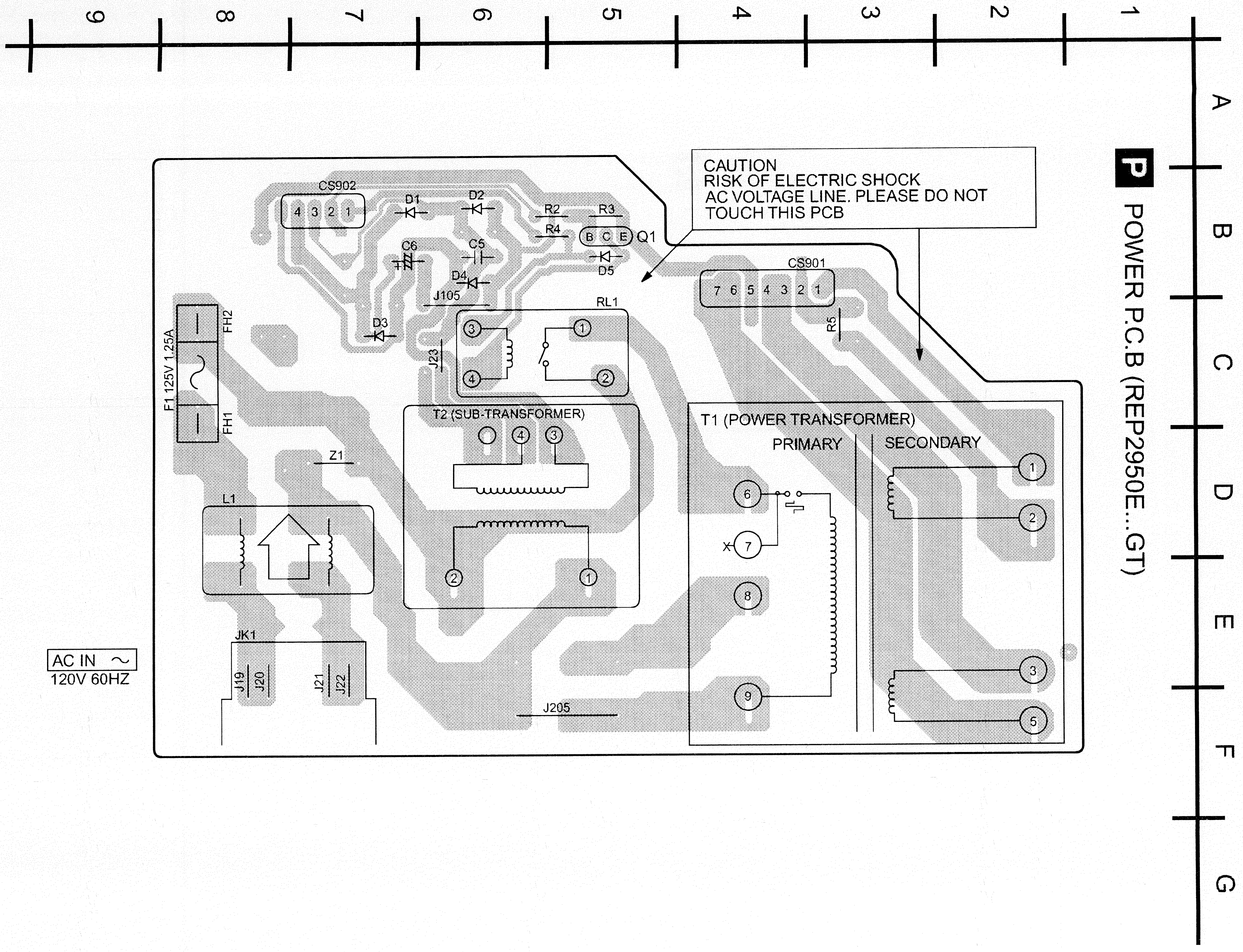
H TIMER P.C.B (REP2950C...GN) (REP2950E...GT)


PW803
4 3 2 1
PW804
4 3 2 1
R854
R855
CLK/TIMER
SW814
TIMER/P/R
SW815

D CONTROL P.C.B (REP2767E...GT)


A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
FM EXT ANT
AM LOOP ANT
AM EXT ANT
GND
JK101
Z120 (TUNER PACK)
L101
L102
Z101
IC101
IC102
IC801
IC802
CS8011
CS802
CS800
CS1303
CP804
CP802
LCD801
Z801
Z802
Q101
Q106
Q801
Q802
Q803
Q804
Q806
Q807
Q808
Q811
Q812
Q813
Q814
Q815
Q816
Q819
Q820
X102
X103
X801
X802
D101
D809
D810
D811
D812
D813
D814
D816
D820
CF201
CF202
Z102

P POWER P.C.B (REP2950E...GT)

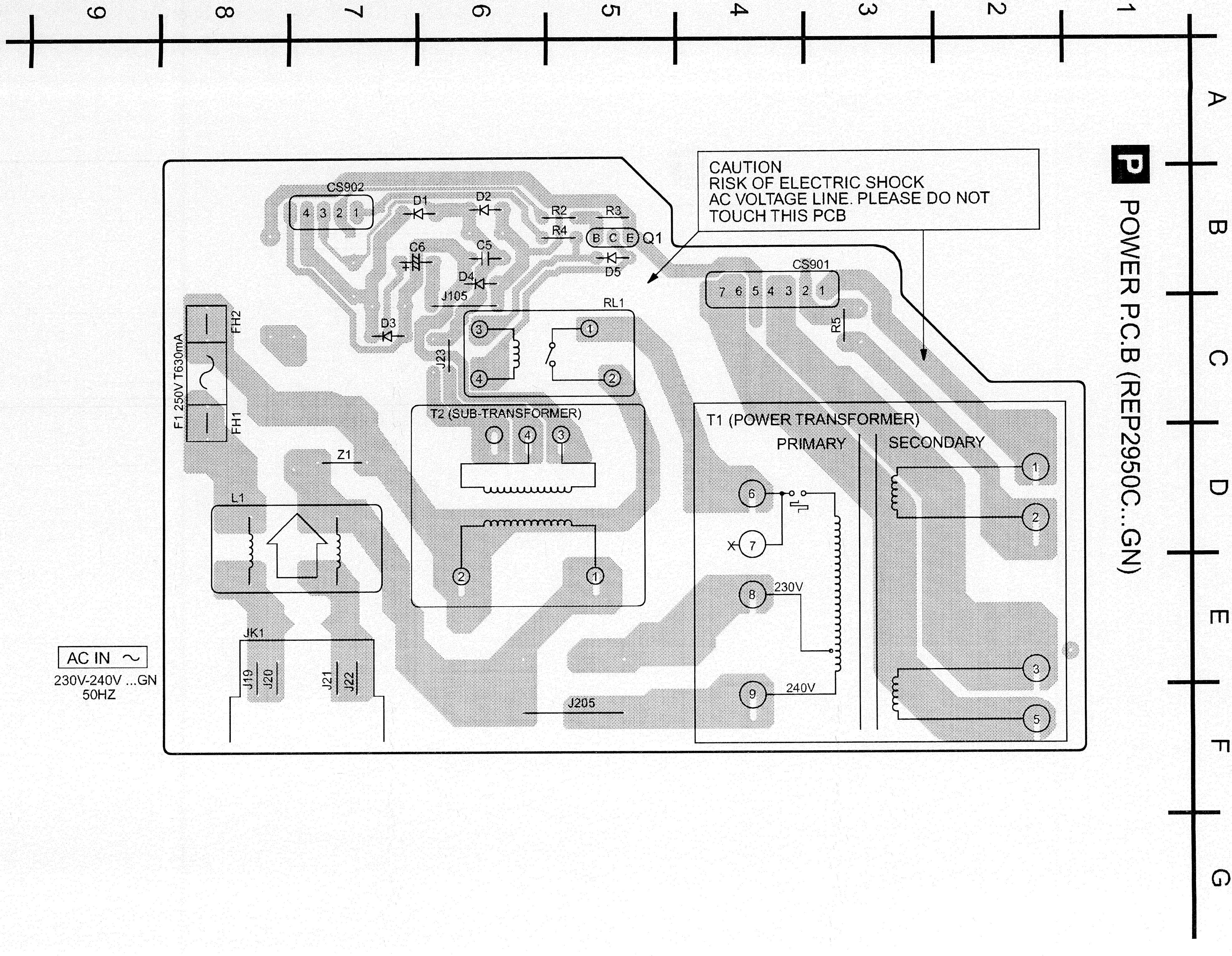


CAUTION
RISK OF ELECTRIC SHOCK
AC VOLTAGE LINE. PLEASE DO NOT
TOUCH THIS PCB

AC IN ~
120V 60HZ

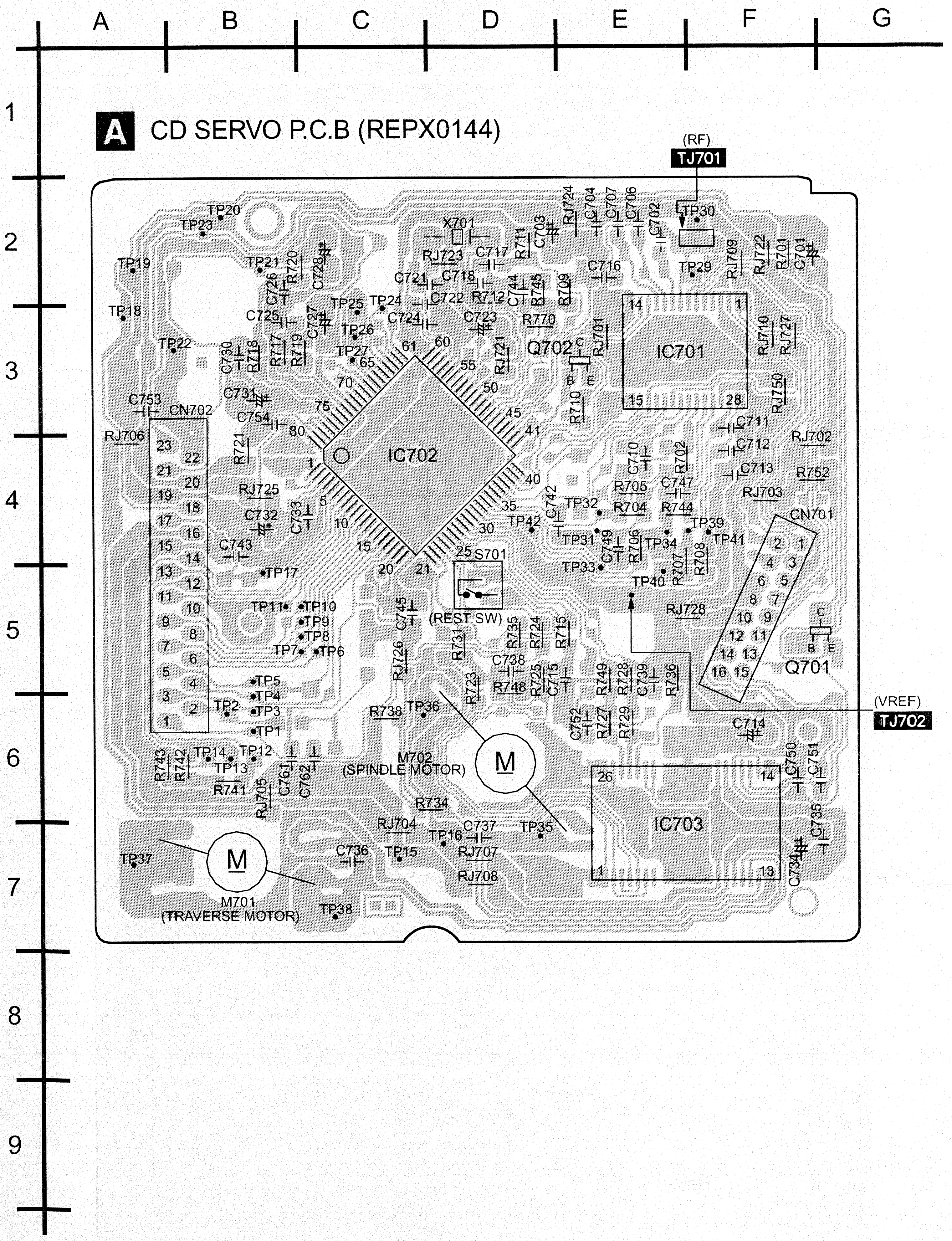
1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
CS902
4 3 2 1
D1
D2
R2
R3
R4
B C E
Q1
C6
C5
D4
D5
J105
CS901
7 6 5 4 3 2 1
RL1
D3
R5
FH2
F1 125V 1.25A
FH1
J23
T2 (SUB-TRANSFORMER)
T1 (POWER TRANSFORMER)
PRIMARY
SECONDARY
Z1
L1
JK1
J19
J20
J21
J22
J205

P POWER P.C.B (REP2950C...GN)



1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
CAUTION
RISK OF ELECTRIC SHOCK
AC VOLTAGE LINE. PLEASE DO NOT
TOUCH THIS PCB
CS902
4 3 2 1
D1
D2
R2
R3
R4
B C E
Q1
C6
C5
D5
D4
J105
D3
CS901
7 6 5 4 3 2 1
R5
RL1
J23
FH2
FH1
F1 250V T630mA
T2 (SUB-TRANSFORMER)
T1 (POWER TRANSFORMER)
PRIMARY
SECONDARY
Z1
L1
230V
240V
JK1
J19
J20
J21
J22
J205
AC IN ~
230V-240V ...GN
50HZ

A CD SERVO P.C.B (REPX0144)


A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
(RF)
TJ701
TP30
TP20
TP23
TP19
TP18
TP21
R720
C728
C726
TP22
C725
C727
TP25
TP24
TP26
TP27
R717
R719
R718
C730
X701
RJ723
C717
C721
C718
C722
R712
C724
C723
R711
C703
C744
R745
R709
R770
RJ724
C704
C707
C706
C702
C716
TP29
RJ709
RJ722
R701
C701
IC701
14
1
15
28
Q702
C
B
E
RJ701
RJ721
R710
RJ710
RJ727
RJ750
IC702
61
60
65
70
75
80
1
5
10
15
20
21
25
30
35
40
41
45
50
55
C753
CN702
C731
C754
RJ706
R721
RJ725
C732
C733
C743
TP17
C711
C712
C713
RJ702
R752
RJ703
C710
R702
R705
C747
R704
R744
C742
TP32
TP42
TP31
C749
R706
TP34
TP39
TP41
TP33
R707
R708
TP40
CN701
S701
(REST SW)
TP11
TP10
TP9
TP8
TP7
TP6
C745
R731
R735
R724
R715
RJ726
RJ728
C738
R748
R725
C715
R749
R728
C739
R736
R723
Q701
TP5
TP4
TP3
TP2
TP1
R738
TP36
C752
R727
R729
(VREF)
TJ702
C714
R743
R742
TP14
TP13
TP12
R741
RJ705
C761
C762
M702
(SPINDLE MOTOR)
M
IC703
26
14
1
13
C750
C751
R734
RJ704
C737
TP35
TP16
C735
C734
TP37
M
M701
(TRAVERSE MOTOR)
C736
TP15
RJ707
RJ708
TP38